

MANUFACTURERS' RECORD

A WEEKLY REVIEW OF THE IRON, STEEL, METAL & HARDWARE TRADES.

AND A MANUFACTURING AND TEXTILE PAPER, DEVOTED TO THE UPBUILDING OF SOUTHERN MANUFACTURES AND THE DEVELOPMENT OF THE MATERIAL RESOURCES OF THE SOUTH.

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VOL. V. No. 21.

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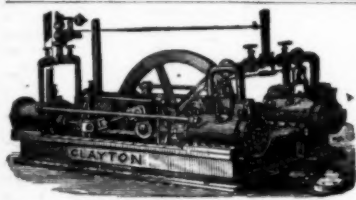
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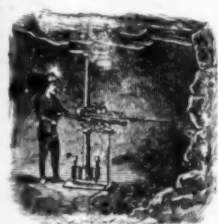
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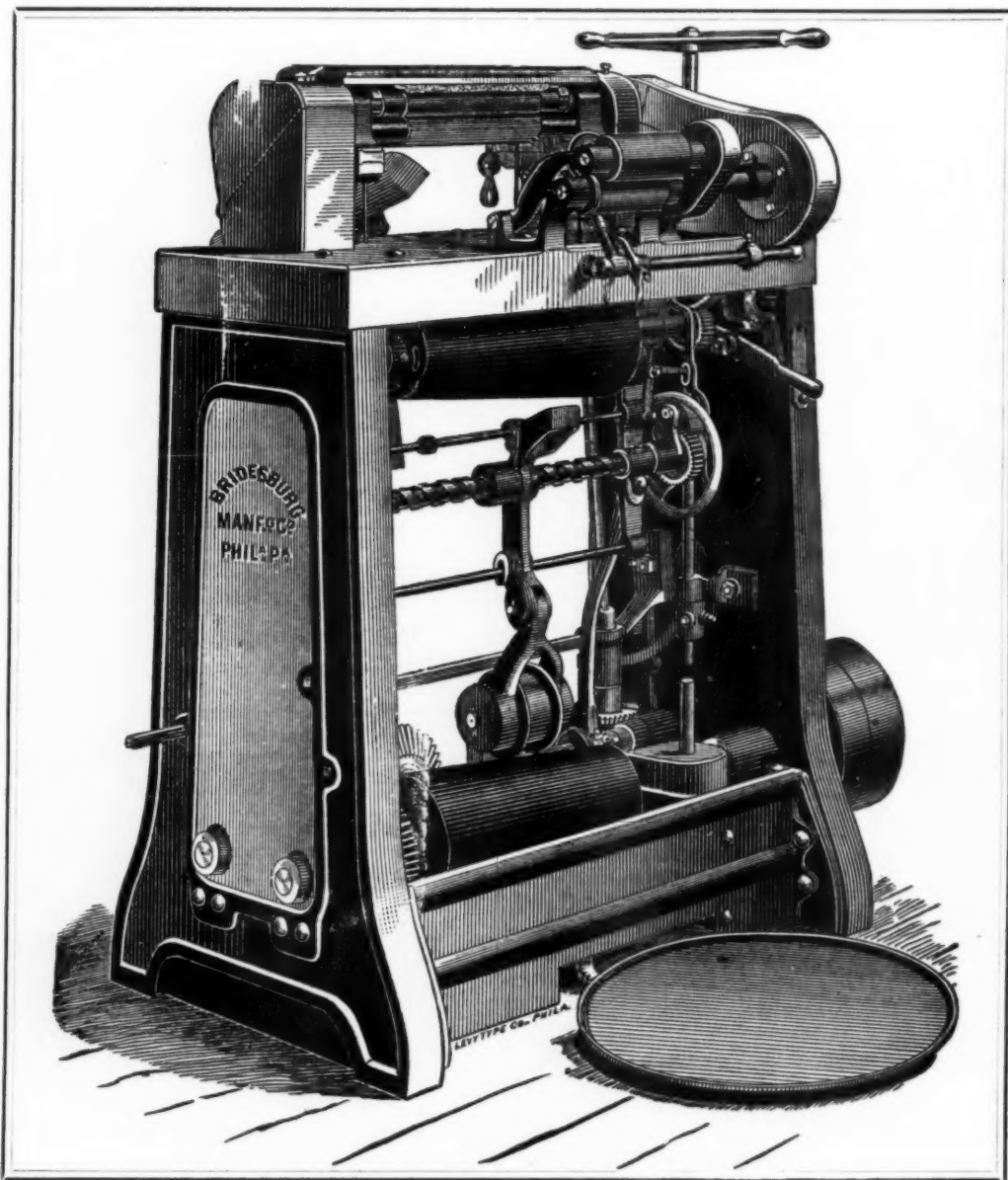
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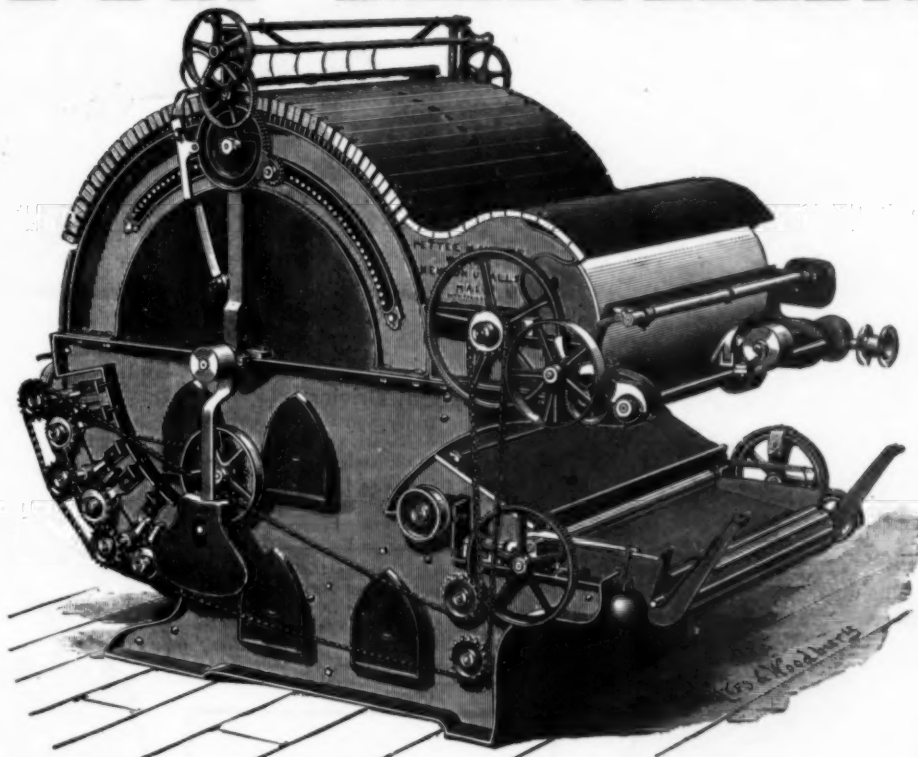
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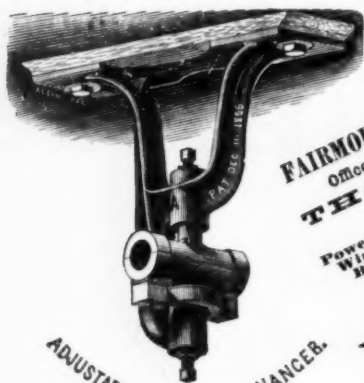
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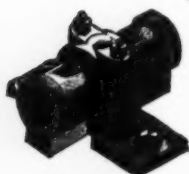
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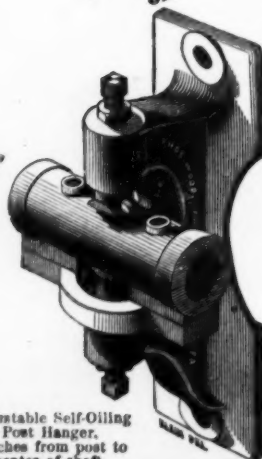
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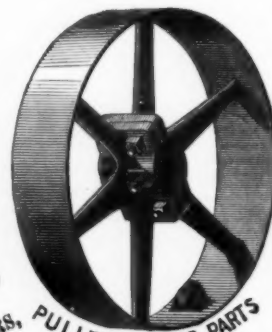
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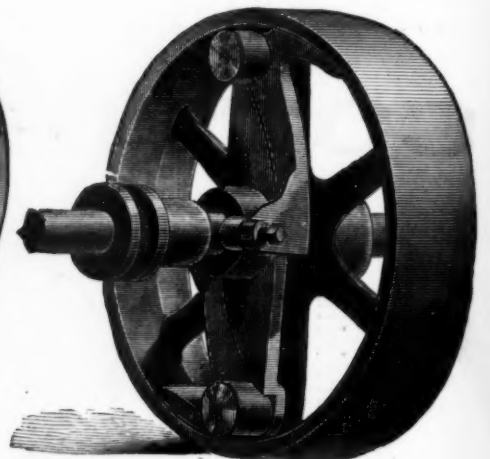
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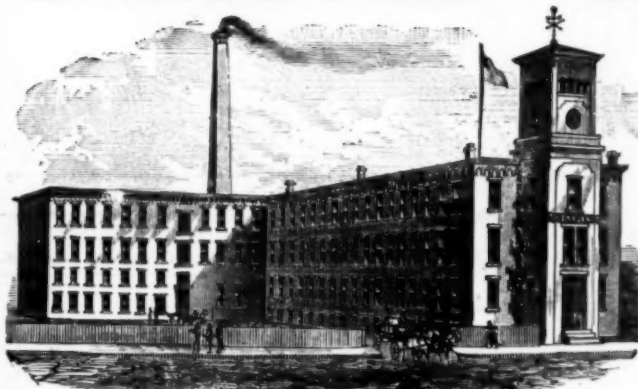
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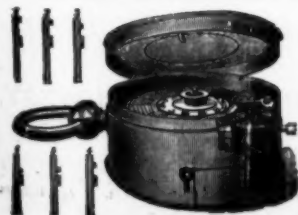
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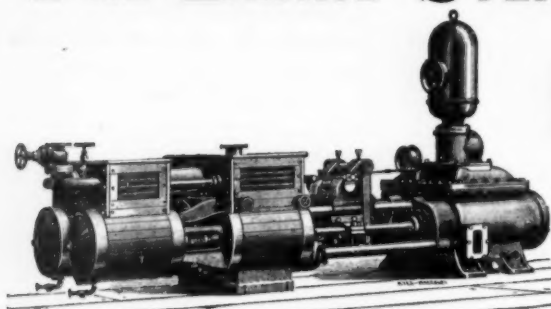
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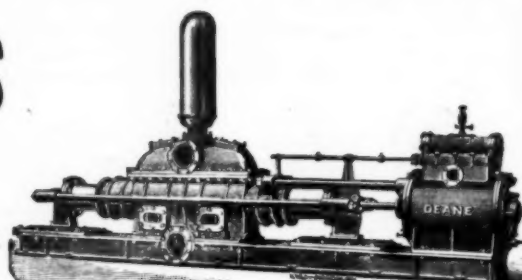
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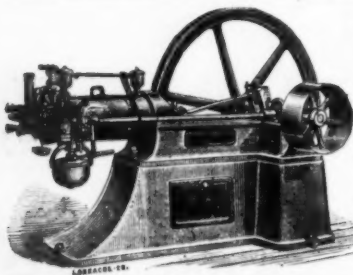
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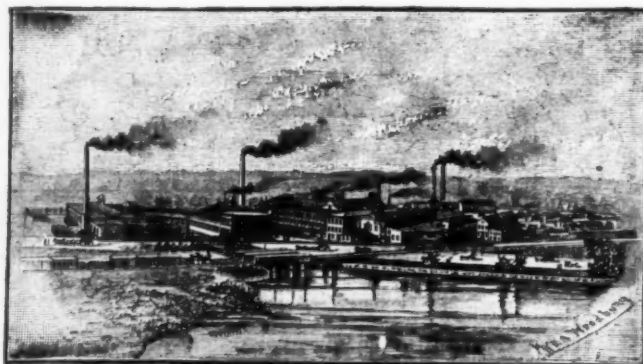
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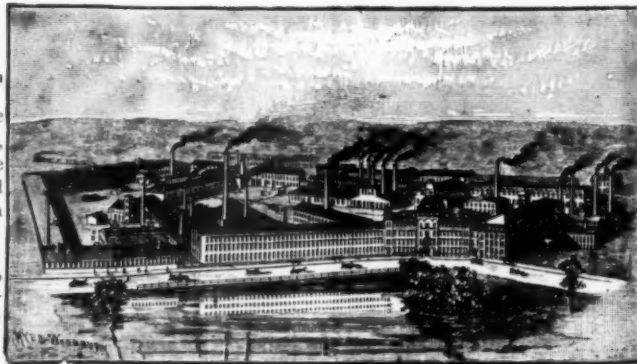
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BALTIMORE Manufacturers' Record.

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BALTIMORE, JULY 5, 1884.

ABOUT six months ago the necessity for more room forced us to move the office of the MANUFACTURERS' RECORD, and we secured quarters in the Maryland Building, corner Post-office avenue and Second street, which we thought would afford ample room for some years. The rapidly growing business of the paper, however, and the consequent necessity for additional force and more office room, have made necessary another removal, and we have fitted up offices in the building 71 and 73 Exchange Place, corner Commerce street, where the MANUFACTURERS' RECORD will hereafter be located.

THE editor Boston Manufacturers' Gazette complains that we misquoted him in saying:

"The Manufacturers' Gazette, of Boston, claims that the Southern cotton mills employ nearly two operatives to one in the New England mills on the same kind of yarn and goods."

And states that

"Just what the Manufacturers' Gazette did say was this: The nine mills above represented show the fact that nearly double the operatives are employed per thousand spindles as in the Northern mills upon the same general goods."

It was not, of course, our intention to misrepresent the Gazette, and we willingly make the correction. Perhaps it would be well to say that a correction was made last week, but, owing to an oversight on the part of printer, was omitted from the paper.

At the invitation of the East Tennessee, Virginia & Georgia Railroad Co., there will be an excursion of Georgia editors to Baltimore during the latter part of July. In view of the intimate business and social relations existing between Baltimore and Georgia, we think it would be well for our merchants to make some special effort to entertain our Georgia visitors.

Foreign Commerce of the United States.

The report of the Bureau of Statistics for May, just issued, shows that the foreign exports for that month were unusually small, amounting to only \$48,791,921, while the value of the imports for the same month was \$56,140,590,—an increase of \$2,000,000 over the preceding month. The exports of gold decreased from \$12,224,135 in March and \$21,047,525 in April to \$2,711,864 in May. The total value of the exports of merchandise for the eleven months of the fiscal year ended May 31 was \$687,090,066, against for the corresponding time of the preceding year \$751,354,302,—a decrease of over \$64,000,000; while for the eleven months ended May 31 the value of imports was \$615,529,020, against for the same time last year \$658,389,492,—a decrease of \$43,000,000. Considering the great falling off in the exports of cotton and foodstuffs it is gratifying to know that our foreign export trade has not suffered more seriously during the last few years than it has. While there has been a large decline in these items the loss has been partly counterbalanced by gains in other branches of our foreign business, and especially in some lines of manufactured goods.

Present indications point to a very full wheat crop—equalling, if not surpassing—the largest ever before produced, and should no disaster befall it before harvest we will have a liberal surplus for export. And while it is true that Europe is not now so dependent upon our wheat as in former years, yet with a large crop our shipments to the old world would also be large, and thus the balance of trade would be turned strongly in our favor. Of course it is impossible yet to make any predictions as to the influence upon our foreign trade that will be caused by the cholera scare in south France. If that spreads to any great extent all foreign business will be seriously interfered with.

The Right Way.

We have frequently had occasion to speak of the very rapid growth of Anniston, Ala., and of the good work that Messrs. Tyler & Noble, the founders of that thriving town, are doing for the development of Alabama. Another advance movement has been made, and one which, while certain to prove of vast benefit to Anniston, will at the same time stimulate other Southern cities to do likewise. Messrs. Tyler & Noble, who are the owners of extensive iron works, a cotton mill, &c., at Anniston, desiring to devote their attention more fully to their manufacturing interests, induced Mr. D. T. Parker, a successful banker, to organize a stock company to be known as the "Anniston Land and Improvement Co." Mr. Parker raised \$500,000 in cash, and Messrs. Tyler & Noble put into the company city property worth

over \$1,000,000, thus giving the company a capital of \$1,500,000, none of the cash being paid to Messrs. Tyler & Noble. Mr. Parker has now mapped out his plan for building up the industrial interests of Anniston. Starting with \$500,000 cash, and an income of about \$250,000 a year from the rent and sale of the company's property, he will be liberally supplied with ready money. He proposes to offer to Northern and Western manufacturers desiring to locate in Anniston unusually favorable inducements; and if he finds anyone who lacks sufficient capital to establish what can be demonstrated will be a paying industry, he will advance them the necessary amount of money. Speaking of this, he says:

"If a man has a manufacturing business that we think would pay well in Anniston, we will propose that he move it to Anniston and enlarge it. If he needs \$30,000 to do this, and has only half of it, we will let him have the other half. You have no idea how many small industries this policy will attract. I know of one man who is working twenty men in a small shop and making money. He wants to come to Anniston and double his capacity. To do this requires \$15,000. He has about \$8,000. We will let him have \$7,000 and he will come."

He also expects to advance \$75,000 to help establish locomotive works, and is now negotiating for a number of other enterprises. Very wisely, however, Mr. Parker is anxious to secure a wide diversity of small industries, and just here it may be well to repeat that this is a most important need of the whole South.

Business Prospects.

In discussing the general business depression, the Houston, Texas, Post says:

"That the 'time of plenty' is near at hand again. It would be sheer nonsense to conclude otherwise. Agents or drummers who have failed to dispose of their goods in the country report, nevertheless, that the crops are in magnificent condition. While the land has not yielded its products a state of insecurity may continue, but when the harvest is gathered in it must be at an end. When such a powerful equivalent as crops makes its appearance in the markets the owners or holders of money will not be able to resist the pressure, and business will flow again in its wonted channels. It should always be held in view that Wall street is not the barometer of real values, and that, after all, the only standard value subject to but little fluctuations is the proceeds of the husbandman's industry. Briefly, there may be a want of money just at present, but when cotton and corn freight the markets, there will be enough of it and to spare. This brief argument applies especially to Texas. A rich agricultural country can only for a brief season be dependent on banks and money-lenders. When the wealth of the soil is realized, its independence is assured. And unless an act of God destroys the crops, the harvest in this State will be a glorious one, and not alone restore confidence, but bring comfort and affluence to all who are engaged in planting, gathering or disposing of it."

The prospects reported for Texas, as favorable as they are, are not more favorable than for the whole South. From every Southern State the reports as to the growing crops are most cheering.

Cotton Manufacturing in the South.

Our correspondent, "S.," in his interesting letter upon cotton manufacturing in the South, makes some valuable suggestions that deserve careful consideration, and which will, we trust, call forth a more general discussion of these subjects. So far as the climatic influence upon laborers is concerned, we are inclined to the belief that this is not to the disadvantage of the South as compared with the North, although we know general opinion is to the contrary. The conditions of labor in the South, the general summer dullness in former years on account of all business being done during the cotton season, and the advantages of cheap and easy living, have heretofore operated in such a way as to make a comparison between the North and the South on this point of no value. The laborers of the two sections worked under entirely different conditions, and the results were very naturally different. Within the last few years, however, there has been a decided change; and as the South year by year becomes less dependent upon the all-cotton system, there will be a more general diversification of labor, and larger results from work. We feel quite sure that in the growing competition between the North and the South, the climatic influence of the latter will not be a disadvantage.

"S." is evidently a believer in the superiority of English textile machinery over American, but we are entirely too patriotic to admit the correctness of his views. There are many Americans who persist in believing that English goods are superior to American. Quite recently the gunning papers were crowded week after week with arguments to prove that no American gun-maker could turn out a gun equal to the fine productions of English manufacturers, and so it has been in other lines of goods, but still we think that it is impossible to prove these statements.—In fact, we believe that the machinery and hardware manufacturers of America can produce goods that cannot be surpassed by the best makes of England. If any of our readers desire to discuss this point, our columns are open to them; and while we have thus differed with "S.," we take great pleasure in publishing his letter, and invite further contributions from him.

THE *Mercury*, of Huntsville, Ala., in republishing our late editorial upon "Old Towns Against New Towns," says:

"That very able journal, the BALTIMORE MANUFACTURERS' RECORD, which is doing so much for the development of the South, has the following article, which is commended to the serious consideration of every business man and capitalist of Huntsville. The *Mercury* has more than once in its columns taken the same position, and it feels gratified in being sustained by a journal which stands so deservedly high as the RECORD. Here is the article; read it and reflect upon it, and heed its wise suggestions, and Huntsville will wake up and become a live, growing city."

CONSTRUCTION DEPARTMENT.

We publish, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

Stephenson & Getaz, Knoxville, Tenn., have received the contract to build the court-house at that city; price \$82,240.

The Laredo Smelting Works, Laredo, Texas, is being worked up.

Machinery has been ordered for a cotton compress, a gin and a grist mill at Mount Pleasant, Texas.

The Tobin Canning Co., San Antonio, Texas, previously reported chartered, has a capital of \$40,000.

Geo. A. Wright and others, of Palestine, Texas, are trying to raise \$10,000 to start a gin and mill.

J. M. Myers, of Louisville, Ky., and others contemplate building a railroad from Anniston, Ala., to Gadsden.

The Water Works Company, of Hot Spring, Ark., are spending about \$60,000 on extensive improvements.

The Mobile Broom Factory, Mobile, Ala., lately burned, is being rebuilt.

The Upper Mud Creek Agricultural, Irrigating and Manufacturing Company, of Kinney county, Texas, has been chartered; stock \$10,000.

The Albany Water Co., of Albany, Tex., has been incorporated to build water-works; stock \$10,000.

John Waite and Alexander Gardner, of Austin and San Antonio, will build a \$58,000 court-house at Brenham, Tex.

A new foundry is to be started in Danville, Va., by Ohio capitalists.

It is stated that six new tobacco factories will be built in Reidsville, N. C., this summer and fall.

H. T. Bailey, Ackerman, Miss., is building a spoke factory.

At Rowlandsville, Md., the late storm washed away Christie & Logan's canning factory, loss about \$2,000, and Christie & Co.'s flour mill; it also damaged the works of the McCullough Iron Co. to the extent of \$80,000 or \$100,000.

The business men of Rome, Ga., propose to raise \$25,000 to develop and operate the Etowah Manufacturing Co.'s property.

Powers & Hays have just completed their large machine shops at Shelby, N. C.

A railroad is to be built from Chattanooga, Tenn., to Anniston, Ala.

A. Wilbert & Son's shingle mill, at Plaquemine, La., previously reported burned, will be rebuilt at once on a larger scale.

J. V. & J. C. George, Millbrook, S. C., will put up steam saw mill. Already purchased part of machinery.

Ruffner & Grady, Charleston, W. Va., will build the new \$61,000 state-house at that place.

Fox & Co. will soon start a large saw mill and planer at Dayton, Tenn. Are already putting in part of machinery.

The Roane Iron Co., of Chattanooga, Tenn., are considering the advisability of turning their rail mill into bridge iron works.

A woolen factory is talked of at Dayton, Tenn.

J. H. Duke and others, of Jackson, Tenn., have purchased the Champion Flour Mills, of that city.

The Rorer Iron Co., of Roanoke, Va., has been reorganized under its new charter, by which it enlarges its scope. F. Rorer is president.

\$12,000 is to be spent in improving the Regimental Armory at Richmond, Va.

The Meridian Fertilizer Factory, Meridian, Miss., previously reported, will erect their works by fall.

Considerable damage was done to the shingle mill of J. J. Flagg, in Lawrence county, Ark., by a boiler explosion.

Q. R. Robinson, Louisville, Ky., will erect a factory.

There is talk of starting a cotton-seed-oil mill in West Point, Ga.

Samuel Noble, of Anniston, Ala., has given \$20,000 to build two schools.

The Barrett Manufacturing Co., of Bath, S. C., (main office, Augusta, Ga.,) whose paper mill was lately burned, expect to rebuild at once.

A. Hutcherson, Whitesburg, Ga., will put more machinery into his cotton factory.

Wm. E. Zinn and others will open and operate the Braithwaite coal mine, near Cross Junction, Va. Wm. F. Braithwaite, Cross Junction, can give particulars.

The Everett Hotel, Jacksonville, Fla., will be enlarged and 175 rooms added.

Negotiations are still in progress for organizing an electric light company at Pine Bluff, Ark.

A gold mine is being developed near Georgetown, Texas.

C. R. Mason & Co., of Frankfort, Ky., will build the reservoir for the Lexington, Ky., water-works.

Incorporated in Nashville, Tenn., by R. S. Cowan, G. C. Terry, and others—The Terry Show Case Co.; stock, \$10,000.

The Fairview Coal and Mining Co., near Asheville, Ala., are putting in new machinery, and will largely increase their operations.

There is talk of a big tobacco factory at Maysville, Ky.

The Catawba Oil Mill, Chester, S. C., will be enlarged, and new machinery put in.

The Raccoon Mills Company, Raccoon Mills, Ga., are putting in new boiler and other machinery.

Rabbeth & Brownell, Hopkinsville, Ky., are at work enlarging their flour mill and elevator.

The Radford Iron Co., Pulaski City, Va., will mine iron ore.

A fruit-canning factory is to be built at Humboldt, Tenn.

It is reported that Gen. Wilder, of Chattanooga, Tenn., contemplates putting up a 100-ton furnace at Bristol, Tenn.

Machinery is being purchased for the new flour mills of P. L. Terry & Co., Roanoke, Va.; previously mentioned.

Time for receiving bids for building a court-house at Gainesville, Fla., has been extended to Aug. 4. J. A. Carlisle, Gainesville, will furnish particulars.

B. Maillefert & Son have leased the Little Lead Russell Gold Mine, in Montgomery county, N. C., and will put in machinery.

The Ennis Cotton Compress Co., of Ennis, Texas, previously reported, have commenced work on their building.

Parkersburg, W. Va., will build water-works.

The Cumberland Steel Works Company, Cumberland, Md., will be organized with a capital of \$150,000. Will enlarge present works.

Work on the buildings for the Salem Paper Mill, Salem, N. C., previously mentioned, will be commenced at once.

The Salem Hosiery Mill, Salem, N. C., will be enlarged and new machinery put in.

Frank Fehr, of Louisville, Ky., and Phillip W. Dielman, Joseph Ziegler and others, of New Orleans, La., have organized the Louisiana Brewing Co., stock \$250,000, to erect a lager beer brewery in New Orleans.

C. G. Banks, Brenham, Tex., contemplates adding a foundry 48x74 feet to his machine shop.

BURNED.

St. Clair Abram's saw and planing mill, at Tavares, Fla.; loss, \$25,000. Will be rebuilt.

Jack's Cracker Factory, Atlanta, Ga.; loss, \$30,000.

Steam saw mill of James H. Callaway, near Salisbury, Md.

THE Hot Blast, of Anniston, after referring to the failure of the South to grow rich on agriculture alone, says:

"Our Northern friends were all this time accumulating vast sums of money by manufacturing goods and selling them to us. They were growing rich under the beneficent operation of a wise protective tariff. Now that the South has gotten into a position to reap like benefits from a tariff, is it wise for us even to agitate the return of free trade? Are we not wise enough to see what protection has done for the industries of the North? and now that like industries are springing up all over the South, that can manufacture under even more favorable auspices than did the North before the war, would it not be worse than suicide for us to talk or think about free trade? It does look as though we ought to learn something from our experience, and from what we see the North has actually accomplished."

MESSRS. L. JEFF. MILBOURNE & Co., the well-known advertising agents, have been forced, by the increase in their business and the necessity for more office room, to remove from their old quarters, at 128 W. Baltimore; and have secured the second floor of the marble building No. 163 W. Baltimore street, which they have fitted up with every possible convenience for the transaction of their extensive business. The rapidly-growing business of this firm has attained its present proportions under the judicious management of the head of the firm, Mr. Milbourne, whose experience in newspaper advertising extends over a period of many years. The interests of their customers are carefully looked after, and any business entrusted to them will be promptly and satisfactorily attended to. Advertisers will save time and money by doing business through this agency.

In the manufacture of nuts, bolts and rivets, Hoopes & Townsend take the lead. Their immense establishment on Buttonwood street has been improved and enlarged from time to time; their trade extends to all parts of the country. Besides this, there are eight other manufacturers in the city, employing from five to forty hands each. Six manufacturers of carriage bolts employ five hundred hands when running full, but at present their business is a little slack. Five manufacturers of chains and cables are moderately busy, principally on chains for hoisting machinery and for railroad purposes.—Philadelphia Press.

The "Wonder of the South" Still Lives.

Sheffield's Progress Sure and Certain.

SOUTHERN OFFICE

BALTIMORE MANUFACTURERS' RECORD, ATLANTA, GA., June 28, 1884.

I have seen some newspaper statements that the new town of Sheffield is a bursted bubble, that the project is dead and has been abandoned by its projectors.

This is wholly incorrect. There is not a word of truth in the statement. Talking with one of the managers yesterday, who has just returned from a trip to Sheffield, I asked him about it. This gentleman is Capt. J. F. Burke, of Atlanta, who has been very active in the enterprise and has considerable interest in it.

Capt. Burke said that the reports had all been traced to one source—to some newspaper correspondent and reporter in Chattanooga, who seems to have sent the same news in different words to different journals. In this way the incorrect statement had been generally disseminated, and the success of the new town has created so much interest that everywhere the editors have taken up the matter and commented editorially upon it, thus calling attention to it and enlarging its circulation.

The work is steadily progressing on the town. The main work at present is fixing the streets, laying pipes for water and gas, and preparing for the builders to erect houses. On account of the panic the work on the railroad has temporarily ceased, but the improvement of the place is kept up. The directors unanimously voted that they would pay no dividends until gas and water works are completed, and a furnace erected and at work. This action of the directors was ratified by the stockholders. There is none of the stock for sale. One Northern gentleman, who bought a block of land, and is going to build a number of buildings, enquired if anybody was scared by the false reports and wanted to sell stock. He wished to take advantage of any such opportunities to buy stock. There was none offering.

The gentlemen who have invested are satisfied. A number of the stockholders and directors live here. The president, Mr. Walter Gordon, is an Atlanta gentleman worth a quarter of a million, made by himself. He is at Sheffield now directing the improvements. Many of our best and wealthiest citizens are interested. One prominent banker, Col. Coker, has over \$30,000 stock in the enterprise. All these gentlemen disavow any knowledge of any disposition to abandon the project, and indignantly repudiate such an idea.

The whole report is a malicious fabrication to injure the town. The attempt will not only fail, but it will react and simply operate to advertise the place more thoroughly. Those who have thus maliciously attempted to injure such an enterprise should receive the severest condemnation.

The financial depression has made all improvement quiet. But there is no depreciation of property—only a cessation of activity. Men with good property are not seeking to sell at a loss, but stiffly hold to their ownings for the rise which they believe is destined to come.

In the meantime the phenomenal enterprise of Sheffield is holding its own. It is in the hands of unembarrassed men of ample capital, who will push its fortunes with all possible energy. I. W. AVERY.

LOCKWOOD, GREENE & CO.

MILL ENGINEERS

Office, 65 Westminster St., Providence, R. I.

Carefully prepared plans, specifications and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.

Cotton Manufacturing.

Its Development in the Southern States.

Editor Baltimore Manufacturers' Record:

SIR:—In your issue of May 31 you refer to the statement of some persons interested in this industry, that cotton manufacturing in the Southern States is more costly for labor than in the Northeastern States, on the ground of more work being done in the latter per individual "help," and that the advantages of a lower price of labor in the South—possibly some 50 percent.—(as alleged) is more than lost by the proportionately larger number of hands required to produce a given quantity of work. I am not prepared to say whether such, as a general rule, is the fact; but were it granted that it is so, it would then be equally important to ascertain the cause of that disproportion.

As you were good enough to ask for information or suggestions upon this most important subject, I will venture to suggest three possible causes:

First. Defective management and excess of "help" over what is actually required.

Secondly. Indifferent or listless workers.

Thirdly. Climatic influence, producing lassitude and incapacity for vigorous activity.

As the cotton manufacturing industry is of but recent development in the Southern States, it can scarcely be supposed to have surmounted all the difficulties besetting the opening up of a new industry, and to be really able to compete successfully with those who have been a generation, it may be, perfecting their arrangements, training their help, and in some cases, perhaps, have adopted every conceivable improvement that ingenuity can devise or capital procure. The admission of this should not discourage those who find themselves outstripped in the race, but lead rather to renewed efforts and greater vigilance to discover and remove the cause. It is very generally admitted now that the cotton manufacturers throughout the States are suffering severely from over-production, and consequent reduction of prices to what is in most cases below actual manufacturing cost. These special advantages are found to exist, as, for instance, a heavy stock of raw material unusually well bought, or where by great improvements in machinery, greater economy in working, or by specialties in the market, a loss can be avoided, and probably in most cases a moderate profit made. In the manufacture of cotton goods there is a closer margin than in most other manufacturing industries, so that a slight turn in the scale of working expenses changes a fair profit into actual loss, or the reverse. I am bold to say, however, that I do not think the cotton manufacturers in the Northeastern States should be the model for the South; at least many of them are doing but indifferently, notwithstanding the tariff protection of the industry. It is the fashion amongst many of a certain class to decry anything and everything European, especially English, and to prefer purchasing their own experience to availing themselves of the experience of those in the old country who have been piling up colossal fortunes by cotton manufacturing, and have perfected their machinery and appliances to the highest possible pitch.

It is natural to wish to encourage home manufacturers by putting in home machinery, but it is not reasonable to do so to the serious detriment of the industry, and which enhances the cost of the product. Much of the machinery produced in this country will doubtless compare favorably with that of any country—superior to most,—but in regard to machinery for textiles, where great excellence has been attained through improvement upon improvement during a long series of years,

and where these industries have been perfected to a degree practically unknown elsewhere, is both unreasonable and absurd. To be able to stand the competition of these days, we must have every facility in plant, labor and economical management, or loss will be inevitable.

The enormous increase in the number of spindles in the Southern States during the last four years is positively alarming! It must mean a heavy loss somewhere! If the natural advantages of the South for the manufacture of cotton are so great as compared with the Northeastern that they can manufacture pound by pound of equal excellence at less cost than can be done in the Northeastern, it means that many of the mills in the latter district will have to shut down permanently, and the weakest financially or in manufacturing ability will go to the wall first. If, on the other hand, the Northeastern manufacturers, who have been the longest in the field, and possessing a good hold upon the trade, avail themselves of latest improvements, and cut down expenses to a minimum—thus placing themselves on a level with the South, or nearly a level,—then it means that a great many of these mills which are now being started in the South must entail a heavy loss on their promoters. Which is to be depends rather upon the class of men placed at the head of affairs than upon trifling disadvantages of location, freight, &c. It will be a severe competition, in which the fittest only will survive!

That this country, even with its rapidly increasing population, or were it to increase five times faster than it does, could keep pace with its late increased power of production, is an utter impossibility. To export the surplus, with present tariff, is a like impossibility!

The present outlook for the textile industries of this country is by no means a cheery one, and no new capitalist, whether as a private firm or corporation, should embark in it without first carefully surveying the position and being satisfied that every possible advantage of capital, "help" and locality can be secured at a minimum of working expenses, and a maximum of excellence, or his position will speedily be changed from a man of capital without experience to a man of experience without capital.

Allusion has already been made to the close margin on which cotton has to be manufactured, and, while it is admitted on the one hand that success depends more upon having a really first class man at the head of the management than upon some trifling matters of location or freight, yet that the ablest man cannot compete successfully against a severe handicap of indifferent (or poor) skill, or too high labor wage, or inferior machinery. These latter are of far more importance than that of securing a water-power mill if coal is cheap.

It may be desirable to refer more particularly to the possible causes of higher cost in the South than in the Northern States.

First, "defective management." It is of prime importance to have a first-class practical man. There are so many theorists and statistical manufacturers in this country. Statisticians are well enough in their place—in conserving the property—but something more than either or both is required in successfully running a mill. The time has gone by when Tom, Dick or Harry, because he was "smart," and had "friends at court" to push him forward, should be placed at the head of a large manufacturing concern, in order that he may draw a handsome salary. It may have done in the past, when profits could be made however bad the management, but not now. Some men, too, appear to think that, however many are employed, though the production is no greater, the

profits will be about as good, and "more cats are kept than there are mice to be caught."

Secondly—A frequent trouble is with slow, listless workers, "dear at any price." If paid by the day, they expect about as much as the best help for doing about half the work; if by piece, not much better; as a rule, they require more attention, and with machinery doing less than full amount. The only alternative: train them to activity or weed them out.

The third disadvantage suggested as a possible factor against the South is climatic influence. It is held by some that more work is got out of a New Englander than can be done under the warmer and more relaxing temperature of the South. Whether this be a fact or merely a supposition is not easy to determine. That the impression exists may be gathered from the following extract, taken from a Boston commercial paper. Referring to Texas, the writer expresses surprise that more progress has not been made in cotton manufacturing, as "its inhabitants are generally supposed to have more of the pushing, aggressive character of the West than the rather indolent Southern nature, as it is commonly understood."

The same writer continues: "In the Southern States many operatives in factories come from the provinces, and, while in some respects they are admirable workers, yet they are not equal to the native-born American help. In the cotton mills of Georgia and Alabama the labor consists largely of what was formerly called 'poor white trash.' This class, though useful for lack of a better substitute, is hardly found in Texas, and experience has shown that negroes are not available or acceptable for mill work."

With regard to the speed and production of cotton mules, the Commercial Bulletin of April 12 says: "The fastest cotton mules now in use in this country are running 4½ stretches of about 66 inches per minute. The Union Cotton Manufacturing Company of Fall River makes 4 stretches of 68 inches each in 58 seconds on No. 36 filling, putting in 17 turns of twist per inch. Massachusetts Cotton Mills of Lowell run 4½ stretches per minute of No. 14 yarn. Derby Cotton Mills, Birmingham, Conn., get 4½ stretches of 66 inches per minute on No. 24 yarn, and 3½ stretches, same length, on No. 55 yarn."

A mule which was shown at a recent exhibition at Oldham, England, ran 6 draws per minute of 64 inches each, besides having a roller motion delivering 4 inches, whilst the mule is winding on the stretch, thus making 68 inches of yarn each draw.

"It is believed to be practicable to use much longer mules than are now generally employed in this country. The Atlantic Cotton Mills, at Lawrence, have mules 2,168 spindles per pair, and run them 4 stretches per minute, producing 4,150 pounds No. 16 filling, or 3,025 pounds No. 22 filling in a week of 58½ hours."

"The average production per spindle of mules running on high counts may be indicated by the experience of the Manville Company, at Manville, R. I. They have 40 pairs of mules, spindles running at 9,120 revolutions per minute, and producing 7½ ounces per spindle per week on No. 50 warp, 6½ ounces on No. 60 warp, and 670 ounces per spindle per week on No. 70 filling."

"The quality of work in some of the Northeastern mills is undoubtedly excellent. The Boston Journal of Commerce says: 'We have before us a cop of white yarn and a small spool of red. These were kindly furnished by John Scott, the present superintendent of the Willimantic Linen Company. The cop is spun down to No. 600, and is a marvel of fineness; the spool No. 400. This yarn was made from the best Sea Island cotton, and spun

especially for the Georgia Centennial Exhibition. This yarn is so fine that we shall make an attempt to count the strands with the microscope. The above are accompanied with a sample of combed Sea Island cotton, which rivals silk in appearance. The works and processes at Willimantic have been so often described that they are well known to our readers everywhere, and especially those who were fortunate enough to see the thread mill run by this company at the last institute fair in this city. The works are, without doubt, both in buildings, machinery and humane treatment of the help, the most perfect yet devoted to the manufacture of sewing thread."

Reference is made in the above extract to the "humane treatment of help." This is an important factor in the successful workings of a factory which is too often overlooked.

Unfortunately, the eagerness to get profit is so absorbing that attention is not often given to the means of acquiring the gain, viz: the help. Human beings are not machines, to be kept going merely by as limited a supply of dollars as possible, as is machinery by a minimum of oil and steam, although they are often treated as such. A policy of consideration and kindness and attention to their comfort does not cost much in dollars, but it goes a long way in getting more and better work done for the same money. Most good hands will do more work for those who treat them well, prompted by right principle and an esprit de corps, than they will from fear of "their head being taken off if they don't." This must not be mistaken for an advocacy of lax discipline or absence of vigilance, but rather the policy of "a pat on the back instead of a blow in the face." S.

MANUFACTURING.

Subscribe to the Baltimore Manufacturers' Record. Price \$3 per year.

MESSRS. DUFUR & Co., the well-known manufacturers of wire and ornamental wire works, N. Howard street, report a brisk and prosperous business. During the past three months they have been pushed to such an extent that they have been compelled to increase their force.

MESSRS. JAMES MURRAY & SON, York street, have plenty of repair work on hand, which has been the case for some months past. They have completed a number of jobs of new work, mentioned in the MANUFACTURERS' RECORD lately.

MR. H. C. BROWN, manufacturer of saws of all kinds, has received a 64-inch circular saw from a firm in Norfolk, Va., to be retouched and hammered. His trade is principally in this city and some little in the South.

MESSRS. L. P. CLARK & SONS, manufacturers of hydrants, report their business as increasing, having a number of orders for their closets and hydrants on hand. They have a large lot of brass casting work for city.

MR. F. X. GANTER, proprietor of Baltimore Steam Show Case Works, Hanover street, has a number of orders from the South.

MR. THOMAS J. JONES, iron founder, 39 Lee street, is working on one large contract and a number of small ones for firms in the city. He reports his business as very promising.

MESSRS. JOHN C. FROELICH & Co., Thames street, are busy on the contracts lately mentioned, and have prospects for other large ones. Their business is very brisk and has been for some time.

MESSRS. MORRIS & TRIMBLE, proprietors of the Baltimore Mill Stone Works, West Falls avenue, have done considerable work of late. They manufacture French burr mill stones, bolting cloths, and deal in mill furnishing goods in general, and edge and solid burrs for minerals and phosphates. This house was established in 1815, and has enjoyed a very large share of home patronage, as well as from the South.

North Carolina State Exposition.

The North Carolina State Exposition, which will be held in the city of Raleigh from Oct. 1 to Oct. 28, will differ from all previous expositions from the fact that the company has made a new departure by inviting each county to represent its products and resources separately. The plan has been so acceptable to the people of that State that the exposition managers have already on their list between 50 and 60 counties, which will not only be represented by exhibits of their own products and resources, but also by numbers of their most influential citizens. The main building, presented in the cut, is 336 x 336 feet, with four open courts, each 100 x 100 feet. The entire structure is well lighted and well ventilated with windows 16 feet apart. Each portion of the building is 45 feet wide, 15 feet high to the tie-

receive a boiler of over 100-horse power, manufactured by Messrs. Babcock & Wilcox, of New York, and two 60-horse-power boilers, manufactured by the Bigelow Co., of New Haven, Conn. The machinery shed, also shown in the cut, will be 100 x 150 feet, and is erected to accommodate saw-mills, agricultural engines, threshers, &c. The power will be furnished by an engine of 75-horse power, manufactured by the Taylor Manufacturing Co., of Chambersburg, Pa. The buildings here shown will be completed by August 15th, and in addition there are already on the grounds two buildings containing 15,000 feet of floor-space. The feature of county exhibits will be a most attractive one, and will offer the best opportunity ever given to business men to advertise for North Carolina trade. The Plaid Manufacturers of North Carolina, at a recent meeting, passed the following resolution:

"Recognizing the great benefit to accrue

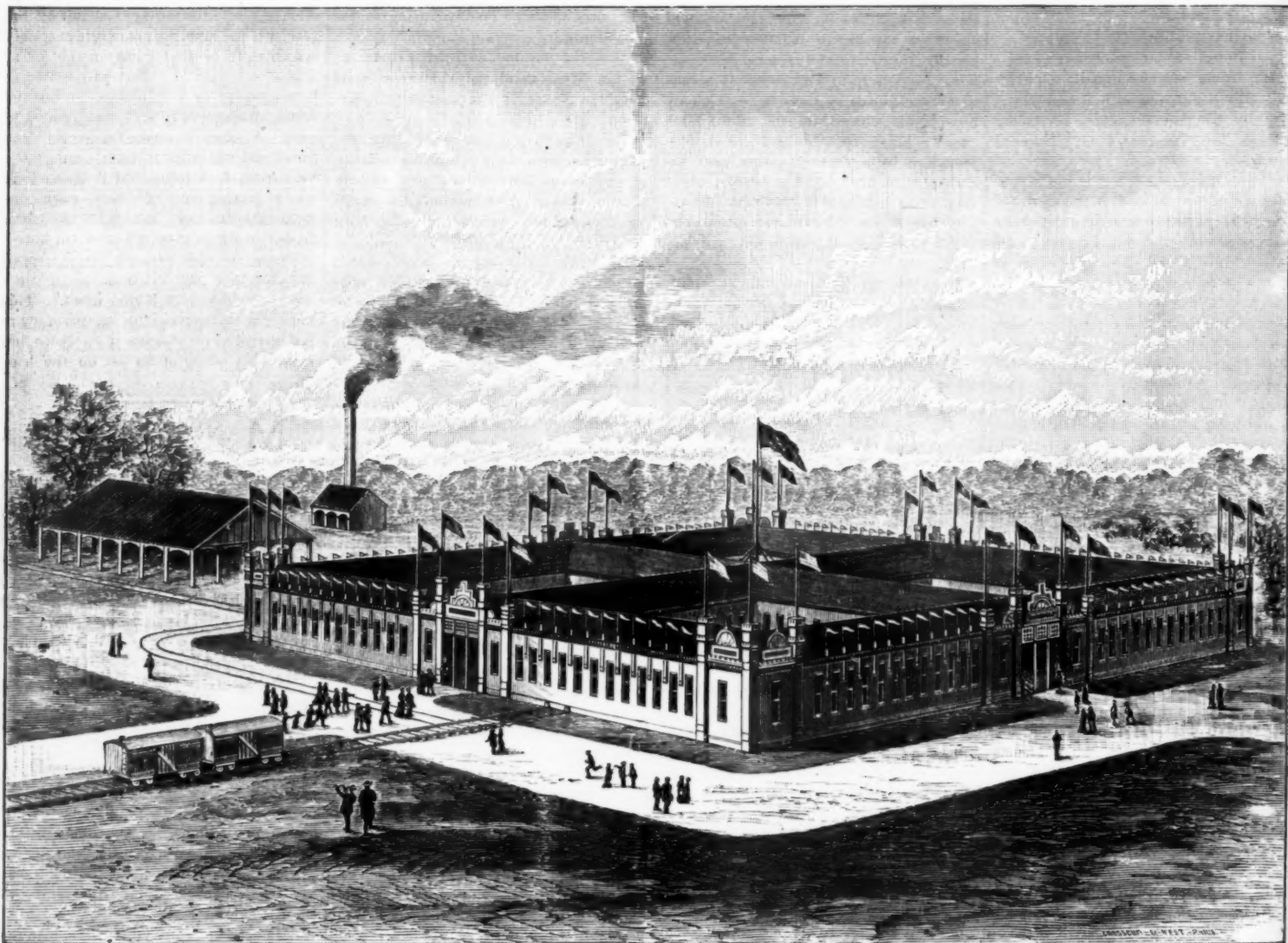
entire State. It will be regarded by outsiders as a complete exponent of the resources of North Carolina, and hence the necessity of making it so. Arrangements will, we doubt not, be made to attract many visitors from the North and West, and the result will be a heavy immigration to the State and large investments of capital. The people of North Carolina ought to do their very best and make a display that will redound to their credit, and we feel sure that this will be done.

For merchants and manufacturers desiring to increase their North Carolina trade, this exhibition will prove very advantageous. It is sure to be visited by the most progressive men of the State, who will go to Raleigh with a view of thoroughly studying the exhibits. North Carolina, as our readers know, is developing with great rapidity, and hundreds of new industrial enterprises are springing into life. The outlook for the State is eminently

List of Patents.

The following patents were granted to citizens of the Southern States, bearing date June 24, 1884. Reported expressly for this paper by Louis Bagger & Co., mechanical experts and solicitors of patents, Washington, D. C.

- 300,937. Batchelor, Jos. F., Baltimore, Md. Railway car.
- 300,957. Courtney, Thomas, Watthall, Miss.—Pump.
- 300,864. Grothans, F. E., Boerne, Tex. Car-coupling.
- 300,866. Harbaugh, S. P., Cumberland, Md. Balancing press.
- 300,971. Higgin, Henry, Newport, Ky. Carriage top.
- 300,972. Higgin, Henry, Newport, Ky. Light frame for carriage.
- 300,778. Hitter, J. A., St. Martinsville, La. Process of and apparatus for treating fibrous plants.
- 300,980. Irvine, J. J., Chattanooga, Tenn. Oil cup.
- 300,981. Kernsten, Emil, Charleston, S. C. Clarifying beer.
- 300,980. Mahaffey, J. B., Baltimore. Apparatus for feeding shavings to furnaces.



beam of the rafters, with 11 feet additional to the corner of the roof. The entire Western portion of the building (that is, in the direction of the boiler-house and machinery shed) will be devoted to machinery—cotton, woolen, silk, &c., and lighter wood-working machines, and all machines that will prove interesting and instructive to the North Carolina people, and that will aid in any way to develop the resources and industries of that State. The power will be supplied by a Harris-Corliss engine of 50-horse power, made by Mr. W. A. Harris, of Providence, R. I., and a Watts-Campbell engine of 100-horse power, furnished by Messrs. W. F. Kornegay & Co., of Goldsboro, N. C. The shafting will be supplied by the Mecklenburg Iron Works, of Charlotte, N. C. In two of the open courts are sheds, which will be filled with agricultural machinery and agricultural implements. The boiler-house is located about 60 feet from the main building, and will be large enough to

to the State from the success of the North Carolina State Exposition in every department of business, and especially to the manufacturing interest, be it

Resolved, By the Southern Plaid Manufacturers' Association that we congratulate the people of the State on the very hopeful outlook for a large and interesting exposition, including every branch of industry carried on in our borders; that it meets our cheerful approval and endorsement, and we pledge our earnest support not only by our own exhibits, but by commending it to the hearty co-operation of all our people, and that all who are able should aid with money and receive the benefits accruing from their liberality, their exhibits and their personal presence."

We think it hardly necessary to urge upon the people of North Carolina the necessity for giving it a liberal encouragement to this State Exposition, for, if properly supported, it must certainly accomplish great good for the

satisfactory, and now is a favorable time for outside business men to cultivate their North Carolina trade.

The officers of the exposition are finding ready sale for the floor space at prices ranging from 15 to 25 cents per square foot; steam power will be furnished free. Blank applications for space will be gladly furnished by the president, Mr. W. S. Primrose, or the secretary, Mr. H. E. Fries. The offices of the company are in the Agricultural Building, Raleigh, N. C.

We are glad to see that the MANUFACTURERS' RECORD lifts its voice against the Oriole nonsense and protests against holding any more exhibitions. The RECORD's position with the manufacturing interests entitle it to speak by authority, and when it says "that more money could be raised to stop these displays than can possibly be secured to pay for having them," it would seem that Oriole exhibitions are to be classed as among the "things that once were."—*Republican*, Hagerstown, Md.

- 300,883. Middleton, A. D., Charleston, S. C. Rice drill.
- 301,067. Nicholson, C. W., Assomossick, Va.—Peanut separating and assorting table.
- 300,792. Nicholson, J. A., Fayetteville, N. C. Steam or water cock.
- 300,887. Owen, Edward, Jackson, Tenn. Adjustable trestle.
- 301,003. Poo's, Robert, New Providence, Tenn. Cartridge-loading machine.
- 300,813. Stewart, W. P., Natchez, Miss. Wire-holder and carrier.
- 300,921. Walter, J. E., and W. B. Montgomery, Abingdon, Md. Nursery-chair.
- 300,834. Wolfe, W. C., Hagerstown, Md. Relief valve for the feed pipes of steam boilers.
- 301,037. Worcester, W. W., Newport, Ky. Wire fence.

TRAVELLERS going to Cincinnati should stop at the Palace Hotel. It is centrally located, is convenient to the depots, the leading business houses and the street car lines. Its rooms are large, well lighted, well ventilated and well furnished. It has broad stairways and two hydraulic elevators. The charges are as low as at any first-class hotel.

THE MARKETS.

OFFICE MANUFACTURERS' RECORD,
BALTIMORE, July 3, 1884.

The past week has developed nothing particularly new or important in business, and if it be said that trade has not improved it can also be said that it has not grown any worse. In fact many believe that the business world shows signs of increasing confidence and that the outlook is encouraging. One of the uncertainties of trade is where to find the bottom of prices; when that is absolutely reached a reaction may be expected. It was supposed that steel rails at \$32.50 had reached the lowest point, but sales have now been made at \$30 a ton.

In manufactured iron trade has ruled very quiet, with business limited and prices weak. We quote nominally as follows:

Hot Bar Iron, 1 to 6x 1/2 to 1.....	1.90	2 c
" " 1 to 4x 1 1/2 to 1.....	1.90	2 c
" " 3/4 to 2, round and square.....	1.90	2 c
Hoop Iron, 1 1/2 wide and upward.....	2.50	3 c
Band Iron, from 1 1/2 to 6 in. wide.....	2.50	2 1/2 c
Horseshoe Iron.....	3.50	3 1/2 c
Norway Nail Rod.....	5.00	5 1/2 c
Black Diamond Cast Steel.....	10.00	11 c
Machinery Steel.....	4 1/2	4 1/2 c
Spring Steel.....	3 1/2	4 c
Common Horse Nail.....	10	11 c
Railroad Spikes, 5 1/2 x 16.....	2.50	2 1/2 c

The pig iron market shows no change, demand continuing only moderate, with prices as last quoted, viz:

Baltimore Charcoal Wheel Iron (all Baltimore ore).....	28.00	20 00
Virginia C. B. Charcoal Wheel Iron.....	28.00	—
Anthracite, No. 1.....	21.00	23 00
" " 2.....	20.00	21 00
" " 3.....	18.00	20 00
" Mottled and White.....	16.00	17 00

Philadelphia Iron Market.

PHILADELPHIA, June 30, 1884.

Since the writing of last report a number of minor changes have taken place in the market deserving of attention. It has been developed that special foundry irons are scarce. A number of sales have taken place at \$20, delivered here. No 2 iron is still unusually abundant. Standard Gray Forge is a little scarce for prompt delivery, but there is no difficulty in placing orders for future delivery, but for the best makes furnace companies are insisting on \$18. There are rumors of large transactions likely to take place in Gray Forge and No. 1, but the only trouble in the way is in reference to terms at which buyers desire to place their orders. Makers refuse to shade any further, because they say to do so would be to sell iron at a loss. The mills will not work up as much forge iron during the summer as usual, and No. 1 foundry is never as abundant in hot weather. Some of the very best makes of foundry command \$21. In the rolling mills there will be a two-weeks suspension. Stocks are very low. Buyers are obliged to wait to have their orders filled. There is a steady demand for small lots. Buyers of large lots would place orders one-tenth less than the inside figures named. Some 10,000 tons of structural iron will be wanted for the Brooklyn Road, and brokers here are waiting hourly for an announcement of the placing of 4,000 tons of angle iron. The Pittsburgh Bridge Co. is shipping iron for a street bridge in St. Louis. The Roach Ship Yard is receiving heavy shipments of shafts from the Nashua Iron and Steel Co., of New Hampshire. Very little is to be said as to steel rails. Contracts are made at \$31, inside figures \$30. Old rails are nominally \$18.50 to \$20; \$19 is claimed to be the inside figure. Nails are nominally 2.40 to \$2.50.

Chattanooga Iron Market.

Specially reported by S. B. Lowe.

CHATTANOOGA, TENN., June 30, 1884.

Business continues to drag in all lines of trade connected with the iron business.

Several of the leading manufacturers and some of the railroads have made reductions in wages ranging from 5 to 15%. Light rains have prevailed during the week. The wheat crop is nearly all gathered and reported a full yield. With the exception of a little backward all other indications point to the largest crops of corn and cotton ever raised in the South.

We quote:

No. 1 Foundry.....	\$17 00	@18 00
No. 2 Foundry.....	16 00	@16 50
Gray Forge.....	14 00	@15 00
Car-Wheel Metal.....	22 00	@24 00
Nails, car-load lots.....	2 25	—
Bar Iron.....	1 70	—
Old Rails.....	nominal.	—
Wrought Scrap, No. 1.....	14 00	—
" " No. 2.....	11 00	—
Cotton Tie (Hippings).....	10 00	—
Spikes (Railroad).....	2 35	—
Light Rails.....	2 00	—
Barbed wire—galvanized.....	6	—
Barb wire—Cambria link.....	6	—

Louisville Iron Market.

Specially reported by Geo. H. HULL & Co.,
Commission Merchants for the sale of Hot and Cold
Blast Pig Iron.

LOUISVILLE, KY., June 30, 1884.

The market is very dull, and some late sales show a decline in prices. We revise quotations accordingly and quote for cash in round lots as below:

Southern Coke, No. 1 Foundry.....	\$17 50	@18 70
" " 2.....	16 50	@17 00
Hanging Rock Coke, No. 1 Foundry.....	18 50	@19 50
" " Charcl.....	22 00	@22 50
Southern Charcoal, No. 1 Foundry.....	18 00	@19 00
Silver Gray, different grades.....	15 00	@17 00
Southern Coke, No. 1 Mill, Neutral.....	15 00	@15 50
" " 2.....	14 50	@15 00
" " 1 Cold Sh.....	14 50	@15 00
Southern Charcoal, No. 1 Mill.....	16 50	@17 50
White and Mottled, different grades.....	13 50	@14 00
Southern Car Wheel, stand brands.....	26 00	@26 50
" " other brands.....	22 00	@24 00
Hanging Rock Cold Blast.....	26 00	@28 00
" " Warm.....	21 00	@23 00

Specially reported by W. B. BELKNAP & Co.,
Nails, Wire, Iron, Hardware, Carriage and
Wagon Goods.

LOUISVILLE, KY., June 30, 1884.

While there is nothing positively encouraging to report, neither is there anything discouraging. Purchases have been steadily reduced to skeleton proportions, and stocks run down as low as possible. If the demand ever does come it will make a lively rush for goods, for there is nothing in hand to draw on. The numerous failures, many of them involving institutions of trust, have gone still further to disturb confidence and tighten money. In the South, where the planter relies on his factory to furnish funds throughout the season till the crop may be realized on, this condition of the money market is more serious in its effects than heretofore, and in some quarters plantation work is reported as seriously impeded. The crops in this and adjoining States are exceptionally fine, and the railroads running northward are already doing a heavy business in the transportation of produce. If there is any virtue in prospects we ought to have a fine fall trade. It is hard to believe that a blight can extend over the whole land from the shadows of Wall street.

Bar iron—Price same as it has been for three months past. Many of the mills are shut down, and more threaten during July. It is impossible to effect large sales by cutting prices. Just at present people don't want the goods.

Sheet iron—An inclination to shade previous figures a little is shown in this class of iron, but rather with a view to realizing on stock than to making up new iron.

Nails.—Rumors of very low prices are current, but these have risen chiefly from odd stocks of one or two mills offering to close out rather than from normal sales. Still, the tendency is undeniably downward, and no amount of "resolving" will keep it up unless production is in some way restricted. Some of the mills have closed voluntarily. One of the best-informed manufacturers of Pittsburgh declared to the writer that under present conditions not a mill on the Ohio River would make 10-penny alone at 2.25. Price

from store here 2.35@2.40 in wholesale lots; 2.45@2.50 in a small way.

Wire.—Barb wire is a trifle weakish, as fence-building has given place to the more important occupation of harvesting, and we do not look for an active trade till August or September. Plain wire simply maintains its own.

Rope.—We note decline on Sial. Manila firm.

Metals.—Tin dull. Lead is low, and bought without hesitation for consumption. Shot has been reduced in price, which will probably hold throughout the season.

With the approach of July 1 we look for a number of changes. Some goods will stand reductions, but many are not in condition to bear squeezing. The action of Stanley Works in advancing screw and strap hinges without the co-operation of other makers, may not be without its moral effect.

Richmond Iron Market.

Specially reported by ASA SNYDER, dealer in
Scotch and American Pig Irons.

RICHMOND, VA., June 30, 1884.

The summary of this market for the closing month is reported as follows: Business very dull; orders confined to small lots. Prices not so firm. This is the annual condition of the iron trade during the month of June, and therefore is not a reliable index to the future market. Prices are as follows:

No. 1 Scotch Pig Iron.....	\$22 00	@24 00
No. 1 Anthracite.....	21 50	@22 00
No. 2 Anthracite.....	20 00	@21 50
No. 1 Virginia Coke.....	18 50	@20 00
No. 2 Virginia Coke.....	17 00	@18 00
No. 1 Virginia Coke Mill Iron.....	15 50	@16 50
White and mottled.....	15 00	@16 00
Virginia C. B. Wheel.....	28 00	@30 00
Old rails (nominal).....	20 00	@21 00
No. 1 Wrought Scrap.....	15 50	@16 00
No. 1 Cast Scrap.....	15 00	@16 00
Old Dominion Nails 7 keg.....	—	—
Richmond Headed Bar Iron, 7 lb.....	—	—
Horse-Shoes, (Tredgair) 7 keg.....	—	—
Mule-Shoes, (Tredgair) 7 keg.....	—	—

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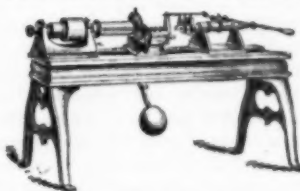
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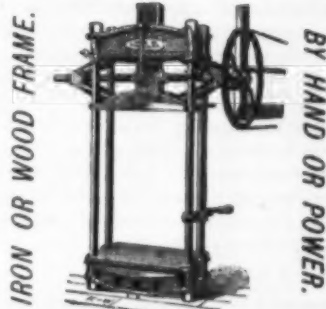
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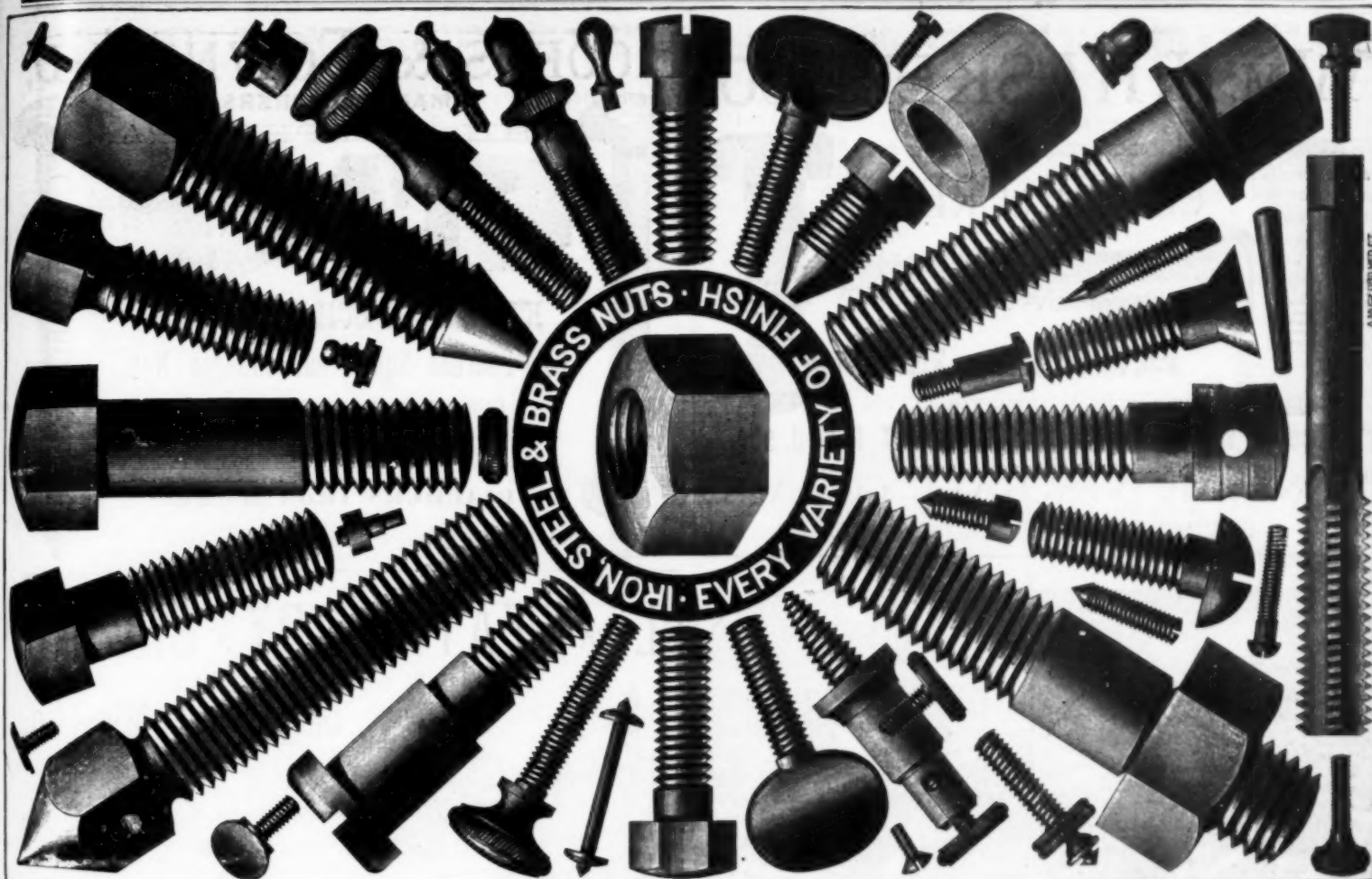
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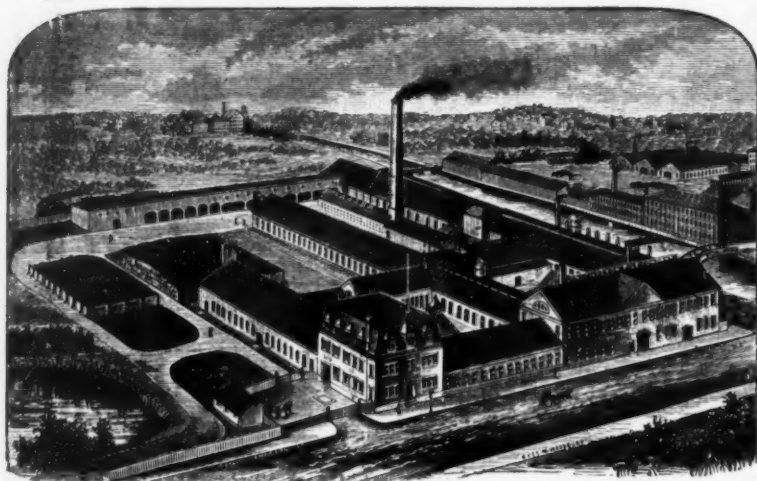
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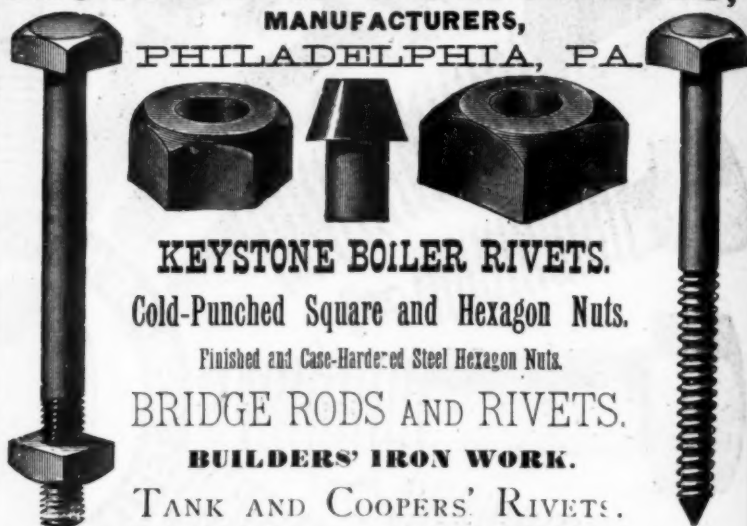
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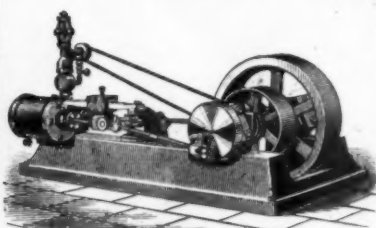
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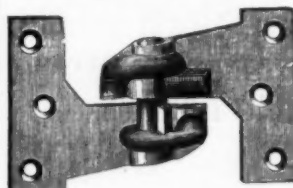
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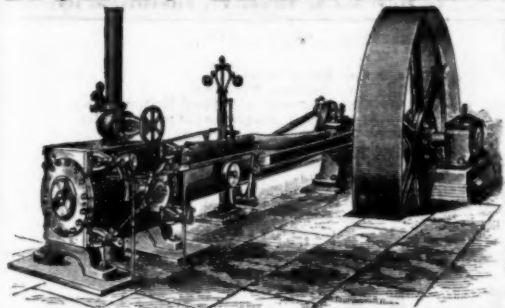
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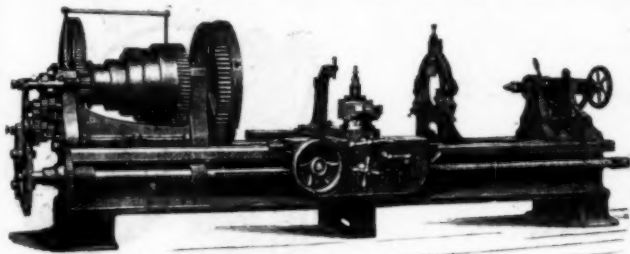
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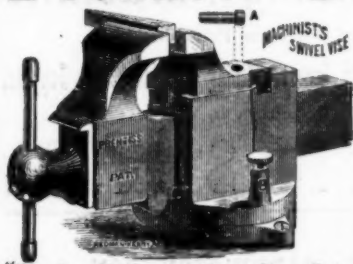
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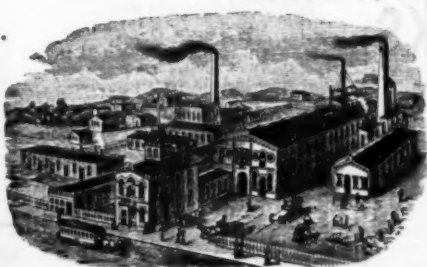
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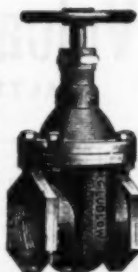
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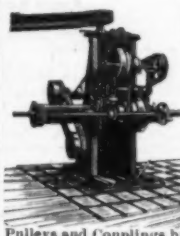
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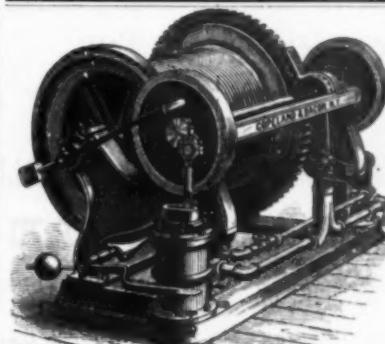
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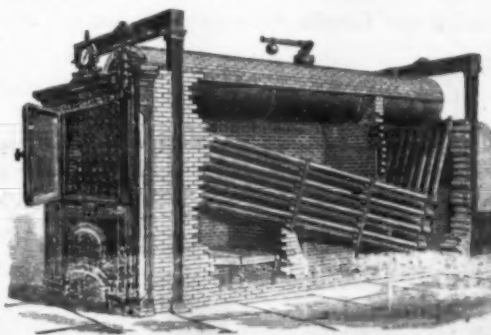
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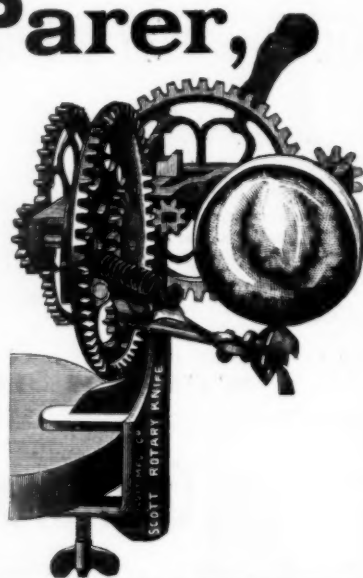
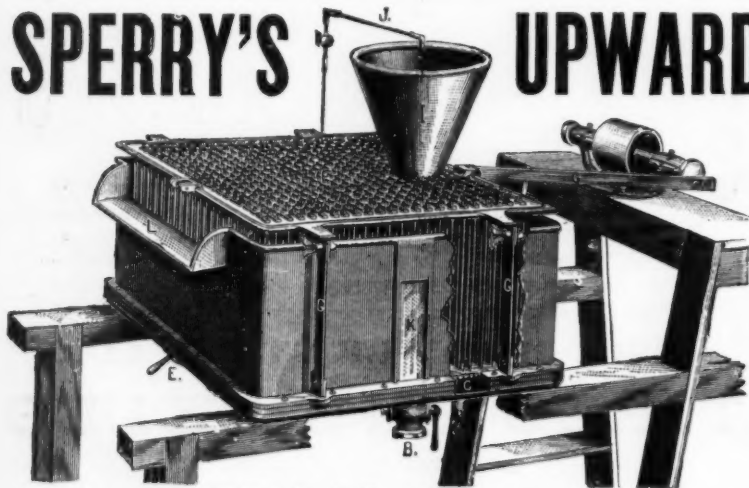
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PRICE \$300. NO ROYALTY.

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Crushing Rolls, Rock Breakers, Stamp Mills and General Mining Machinery and Supplies.

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**SCALES,**

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The undersigned is prepared to contract for the manufacture and erection of BOILERS AND ENGINES for Steamers, Manufactories, Mines, Water Works, Blowing Engines for Furnaces, &c., &c. He will also furnish designs and contract for the building and erection of Iron Bridges, Build Girders, Beams, &c., for Railways or Buildings. Castings of all descriptions. Information and estimates furnished upon application as above.

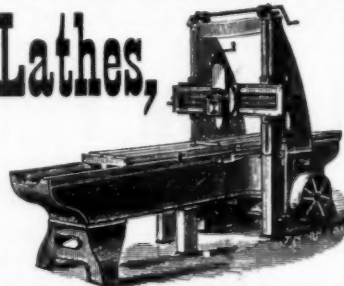
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Lathes,

Iron Planers, Boring Mills, Radial, Upright, Suspension Multiple Level, Carriage Makers, Blacksmiths' Hand and Power Post DRILLS, and a variety of other Machinists' Tools. PATENT DOUBLE CHAIN SCREW PULLEY BLOCKS, unrivalled for durability, safety and power. PATENT DOUBLE CHAIN QUICK-LIFT HOISTS, with brake for quick and easy lowering. Circulars furnished.

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 Plate Hinges (8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000, 1002, 1004, 1006, 1008, 1010, 1012, 1014, 1016, 1018, 1020, 1022, 1024, 1026, 1028, 1030, 1032, 1034, 1036, 1038, 1040, 1042, 1044, 1046, 1048, 1050, 1052, 1054, 1056, 1058, 1060, 1062, 1064, 1066, 1068, 1070, 1072, 1074, 1076, 1078, 1080, 1082, 1084, 1086, 1088, 1090, 1092, 1094, 1096, 1098, 1100, 1102, 1104, 1106, 1108, 1110, 1112, 1114, 1116, 1118, 1120, 1122, 1124, 1126, 1128, 1130, 1132, 1134, 1136, 1138, 1140, 1142, 1144, 1146, 1148, 1150, 1152, 1154, 1156, 1158, 1160, 1162, 1164, 1166, 1168, 1170, 1172, 1174, 1176, 1178, 1180, 1182, 1184, 1186, 1188, 1190, 1192, 1194, 1196, 1198, 1200, 1202, 1204, 1206, 1208, 1210, 1212, 1214, 1216, 1218, 1220, 1222, 1224, 1226, 1228, 1230, 1232, 1234, 1236, 1238, 1240, 1242, 1244, 1246, 1248, 1250, 1252, 1254, 1256, 1258, 1260, 1262, 1264, 1266, 1268, 1270, 1272, 1274, 1276, 1278, 1280, 1282, 1284, 1286, 1288, 1

LOCKS AND LATCHES.
 Cabinet, Eagle, Changes made in list price
 Cabinet, Grignon, of some numbers Jan. 1,
 Cabinet, Bridgeport, 1881, dis 25 & 25
 Cabinet, P. & F. Corbin, dis 40
 Trunk, new list, Jan. 1, 1881, dis 15 & 25
 Yale Lock Co., Flat Key, dis 40
 Plate, dis 35 & 25

DOOR LOCKS, ETC.

Brantford, dis 45
 Norwich, dis 45
 P. & F. Corbin, dis 45
 Russell & Erwin, dis 45
 Mallory, Wheeler & Co., dis 45
 Padlocks—Russell & Erwin, dis 45
 Mallory, Wheeler & Co., dis 45
 Wm. Wilcox & Co., Plate Locks, dis 45
 Yale Lock Manf. Co.'s "Standard", dis 45
 Homer's, dis 45
 Conestoga, dis 45
 Scandinavian, "Norwich", dis 45

MALLIES.

Pensfield Block Co., Apple, Hickory and
 Lignumvite, dis 30

Dixon's (P. S. & W.), Nos. 1, 2, 3, 4,
 dis 14, 17, 19, 30, 40, 25 & 35
 Perry's, Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10,
 dis 14, 17, 19, 30, 40, 25 & 35
 Woodruff's (P. S. & W.), Nos. 100, 150,
 dis 15, 18, 15, 35 & 35

MOLASSES GATES.

Stebbins Patterns, dis 70 & 10
 Stebbins Genial, dis 70 & 10
 Stebbins Tinned Ends, dis 70 & 10
 Chase's Hard Metal, dis 70 & 10
 Self-Measuring, (Enterprise), dis 20
 Lincoln's Pattern, dis 70 & 10
 Wood's, dis 70 & 10
 Boss, Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10,
 dis 70 & 10

NUTS AND WASHERS.

Square Nuts, 8 c off list
 Hexagon Nuts, 8 c off list
 Washers, 7 c off list

PLANES AND PLANE IRONS.

Bench, First Quality, dis 20
 Bench, Second Quality, dis 25
 Molding, dis 15
 Bailey's (Stanley R. & L. Co.) new list, Jan.
 1881, dis 20 & 10
 The Stanley R. & L. Co.'s new list,
 January 1881, dis 20 & 10
 Bailey's, dis 20 & 10
 Plane Irons, Butcher's, dis 20
 Plane Irons, Auburn Tool Co., dis 20
 Plane Irons, Ohio Tool Co., dis 20
 Plane Irons, Sandusky Tool Co., dis 20

PLANES AND PLANE IRONS.

Button's Patent, dis 35
 Hall's Pat. Compound Lever Cutting Nippers,
 No. 2, 5 in., dis 15.50; No. 4, 7 in., dis 21
 Gas Pipe, dis 35

PLUMBS AND LEVELS.

Stanley R. & L. Co.'s Pat. Adjustable, dis 40
 Stanley R. & L. Co.'s Non-Adjustable, dis 40
 Chapin's Patent Adjustable, dis 40
 Chapin's Non-Adjustable, dis 40
 Standard Rule Co.'s New Adjustable, dis 40
 Standard Rule Co.'s Non-Adjustable, dis 40
 Pocket Levels, dis 40

RAILS.

Sliding Door, Wrought Brass, dis 40
 Sliding Door, Wrought Wrt. Iron, dis 35
 Sliding Door, Iron, Painted, dis 40
 Barn Door, inch, dis 40
 Per 100 feet, \$2.50 3.50 5.00 dis 10
 B. D. for N. E. Hangers—
 Small Med. Large,
 Per 100 feet, \$2.10 2.70 3.00 net

RIVETS.

Iron and Tinned, new list, Dec. 10, 1881, dis 40
 In bulk, new list, Dec. 10, 1881, dis 40
 Copper Rivets and Burrs, dis 45
 Nos. 7, 8, 9, 10, 11, 12, 13, 14, 15,
 dis 45, 50c, 52c, 54c, 56c, 58c, 60c, 62c, 70c,
 dis 40

RIVET SETS.

Stair, Brass, dis 25
 Stair, Black Walnut, dis 25

RULES.

Boxwood, Ivory,
 Chapin's, dis 70 & 10
 Standard, dis 40 & 10
 Stanley, dis 70 & 10
 Stevens & Co., 70 & 10, Ivory, dis 50
 Stevens & Co., Miscellaneous, dis 50 & 10

SAD IRONS.

Self-Heating, Charcoal, dis 35
 Mrs. Pott's, dis 35
 Enterprise Star Iron, new list, July 20, 1881, dis 35
 Comb'd Fluter and Sad Iron, dis 15.00, dis 15
 Common Sad Irons, dis 25

SAND PAPER.

Baeder & Adamson's Flint, 00 to 1, \$1.50 per r.m.
 Baeder & Adamson's Flint, 2, 3, 4, 5, 6, 7, 8, 9, 10, r.m.,
 Baeder & Adamson's Flint, Assort'd 4, 5, 6, 7, 8, 9, 10, r.m.,
 Baeder & Adamson's Star, 3, 75 per r.m.
 Baeder & Adamson's Emery, 3, 75 per r.m.
 J. Bartlett's Sand, Flint and Emery Paper, 30 & 45

SASH CORD.

Common, dis 14c, net
 Patent, dis 17c, net
 Silver Braided Lake Hemp, dis 15c, net
 Silver Braided Lake White Cotton, dis 50c, net
 Silver Braided Lake Drab Cotton, dis 55c, net
 Silver Lake Cable Laid, Bengall unbleached
 Hemp, 17 cts, dis 10
 Russian Hemp, 19 cts, dis 10
 Italian Hemp, 34 cts, dis 10

SASH WEIGHTS.

Solid Eyes, In 500-lb. lots and over, dis 15c, net
 Sausage Stuffers or Fillers,
 Mifco, dis 20, dis 25 & 35
 Perry, dis 20, No. 15; No. 0, \$21, dis 35
 Enterprise Mfg. Co., dis 25
 Monarch, dis 40

SAWS.

Boydton's Lightning Cross Cuts, new list, dis 40
 Boydton's Circular and Mill, dis 40
 Boydton's 100, dis 25

Boydton's Lightning Hand, Panel and Rip, dis 25
 Disston's Circular, dis 40
 Disston's Mill, dis 40
 Disston's Cross Cut, dis 40
 Disston's Hand, Panel, Rip, dis 25
 Hubbard, Bakewell & Co., Cir. Saws, dis 40 & 25
 Hubbard, Bakewell & Co., Cross Cut, 50c, ft.
 Hubbard, Bakewell & Co., One-Man's, X Cut,
 dis 40 & 25

SAW FRAMES.

White, dis 1.05, dis 1.10
 Saw No. 1, dis 1.10, dis 1.15

SAW SETS.

Stillman's Genuine, dis 2.50 and 5.50, dis 10
 Stillman's Imitation, dis 2.25, dis 3.00 & 10
 Common Lever, dis 2.00, dis 3.00 & 10
 Leach's, No. 0, \$8.00; No. 1, \$15; dis 15
 Hammer, Hotchkiss, dis 15, dis 15
 Alken's Genuine, dis 15, dis 15
 Alken's Imitation, dis 7.00, dis 15
 Disston's, dis 15
 Morrill's, No. 1, \$15; No. 5, \$52, dis 35 & 10

SCALES.

Hatch, Counter, No. 171, dis 42, dis 35 & 10
 Hatch, Tea, No. 161, dis 42, dis 35 & 10
 Chicago Scale Co., Special, dis 20
 Fairbanks, dis 20
 Fortyth Scale Co., dis 45
 Howe's, dis 45
 Chatillon's Grocers, dis 45
 Chatillon's Eureka, dis 25
 Family Universal, dis 25
 Family Favorite, dis 25
 Family Turnbull's, dis 25
 Scale Beams, List of Jan. 12, 1882, dis 50

SCREW DRIVERS.

Adjust. Box Scraper (S. H. & L. Co.), dis 50, dis 20 & 10
 Box, 2 Handle, dis 40, dis 10
 Box, 2 Handle, dis 40, dis 10
 Foot, common, dis 45 & 10
 Ship, common, dis 45, net
 Wilson Mfg. Co., dis 10

SCREWS.

Flat Head Iron, list Dec. 27, '81, dis 70
 Round Head Iron, dis 50
 Flat Head Brass, dis 60
 Round Head Brass, dis 15
 Flat Head Blued add 2 1/2 % to net of invoice.
 Brass and Silver Capped, dis 40
 Japanned, list of Plain screws, dis 20
 Coach, Patent Gimlet Point, dis 10
 Coach, Common or Lag, dis 60 & 10 & 10
 Bed, dis 10
 Machine, Flat Head, Iron, dis 55
 Machine, Round Head, Iron, dis 50
 Bench, Iron, dis 50 & 10
 Bench, Wood, Beech, dis 10
 Bench, Wood, Hickory, dis 10
 Hand, Wood, dis 20 & 10
 Hand Rail, Sargent's, dis 60 & 10
 Hand Rail, Humason, Beckley & Co.'s, dis 40 & 10
 Hand Rail, Am. Screw Co., list Jan. 1, '81, dis 70
 Jack (Wilson's), dis 25

SCREEN FRAMES AND FIXTURES.

Standard Window Screens No. 1, dis 40; 2, 50
 Door, No. 5, 15; dis 40 & 10
 Window Corner Irons, No. 3, dis 25, 32
 Door, No. 6, dis 30
 Door Latches, dis 40 & 10
 Porter's Patent Window and Door Screens, Frames,
 dis 40 & 10

PER DOZ. SETS.

In Im. Bl'k
 White, Walnut,
 No. 20, dis 2.75, dis 3.25
 No. 21, dis 3.25, 4.00
 No. 22, dis 5.50, 6.75
 No. 23, dis 6.00, 7.50
 No. 24, dis 9.00, 11.00

PORTER'S CORNERS AND STICKS COMPLETE FOR A

three-foot window, dis 40, sets, \$4
 No. 1, Set for Window, dis 40, sets, \$4
 No. 1 1/2, dis 40, sets, \$4
 No. 4, dis 40, sets, \$4
 No. 5, dis 40, sets, \$4
 No. 6, dis 40, sets, \$4
 No. 7, dis 40, sets, \$4
 No. 8, dis 40, sets, \$4
 No. 9, dis 40, sets, \$4
 No. 10, dis 40, sets, \$4
 No. 11, dis 40, sets, \$4
 No. 12, dis 40, sets, \$4
 No. 13, dis 40, sets, \$4
 No. 14, dis 40, sets, \$4
 No. 15, dis 40, sets, \$4
 No. 16, dis 40, sets, \$4
 No. 17, dis 40, sets, \$4
 No. 18, dis 40, sets, \$4
 No. 19, dis 40, sets, \$4
 No. 20, dis 40, sets, \$4
 No. 21, dis 40, sets, \$4
 No. 22, dis 40, sets, \$4
 No. 23, dis 40, sets, \$4
 No. 24, dis 40, sets, \$4
 No. 25, dis 40, sets, \$4
 No. 26, dis 40, sets, \$4
 No. 27, dis 40, sets, \$4
 No. 28, dis 40, sets, \$4
 No. 29, dis 40, sets, \$4
 No. 30, dis 40, sets, \$4
 No. 31, dis 40, sets, \$4
 No. 32, dis 40, sets, \$4
 No. 33, dis 40, sets, \$4
 No. 34, dis 40, sets, \$4
 No. 35, dis 40, sets, \$4
 No. 36, dis 40, sets, \$4
 No. 37, dis 40, sets, \$4
 No. 38, dis 40, sets, \$4
 No. 39, dis 40, sets, \$4
 No. 40, dis 40, sets, \$4
 No. 41, dis 40, sets, \$4
 No. 42, dis 40, sets, \$4
 No. 43, dis 40, sets, \$4
 No. 44, dis 40, sets, \$4
 No. 45, dis 40, sets, \$4
 No. 46, dis 40, sets, \$4
 No. 47, dis 40, sets, \$4
 No. 48, dis 40, sets, \$4
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 No. 82, dis 40, sets, \$4
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 No. 96, dis 40, sets, \$4
 No. 97, dis 40, sets, \$4
 No. 98, dis 40, sets, \$4
 No. 99, dis 40, sets, \$4
 No. 100, dis 40, sets, \$4

SHEDS AND SCISSORS.

American (Cast) Iron, dis 70 & 10
 Pruning, dis 70 & 10
 Barnard's Lamp Trimmers, dis 15
 Tinner's, dis 15
 Cona Shears, dis 80
 Norfolk Shear Co., dis 75
 Jersey Shears, dis 80
 J. Wise & Son, Nickel, 30 & 55; Japanned, 60 & 5

SHEDS.

Sliding Door, M. W. & Co., list, dis 45 & 25
 Sliding Door, R. & E. list, dis 60 & 10 & 25
 Sliding Door, Patent Roller, dis 60 & 10 & 25
 Sliding Door, Pt. Roller, Hatfield's, dis 60 & 10 & 25
 Sliding Door, Russell's Anti-Frict'n, dis 60 & 10 & 25
 Also see Hangers.

SHOVELS AND SPADES.

Ames, New List, July 1, 1881, dis 15
 Griffiths, dis 50 & 5
 Remington's (Lowman's Patent), dis 30
 Rowland's, dis 35
 Kimball's, new list, dis 20
 Lippincott, new list, dis 20
 Hussey, Blus & Co., dis 15

SPOKE TRIMMERS.

Bonney's, dis 10, dis 40 & 5
 Stearns', dis 10, dis 40 & 5
 Ives', No. 1, \$15; No. 2, \$12, dis 55 & 10
 Douglass', dis 10, dis 40 & 5

SILVER-PLATED WARE.

Wm. Rogers Manf. Co., dis 50, 5 & 5
 Holmes, Booth & Hayden, dis 40 & 10 & 5
 Brown Bros., dis 40 & 10 & 5
 Wallace's Steel Silver Plated, dis 30 & 10
 Rogers Bros 1847, dis 60
 C. Rogers & Bro., dis 40, 10 & 5

SILVER PLATED HOLLOW WARE.

Wm. Rogers Manf. Co., dis 40, 15 & 5
 Meriden Britannia Co., dis 35

SPOONS.
 Britannia, dis 60 & 10
 Tinned, Iron, Table and Tea, dis 65
 Tinned Iron Basting, dis 65
 German Silver, dis 40

STONE.

Hindustani No. 1, 5c; Axe, 8c, net
 Sand Stone, dis 35, dis 35 & 10
 Washita Stone, No. 1, dis 15c, net
 Washita Stone, Slips, No. 1, dis 45c, net
 Arkansas, dis 1.50, dis 1.50, net

SQUARES.

Steel, dis 50; full cases, dis 50 & 10
 Iron, dis 50; full cases, dis 50 & 10
 Nickel Plated, add \$2.50 per doz., net.
 Try Square and T Bevels, dis 50 & 10
 Disston's Try Square and T Bevels, dis 40

VISES.

Solid Box—Wilson's, dis 50
 Trenton, dis 45
 Iron City Tool Works, dis 50
 Bench—Wilson's, dis 45
 Trenton, dis 25
 Parker's, dis 25
 Prentiss, dis 25
 Bonney's, dis 35
 Well Wheel, dis 60 & 10 & 10

WIRE.

Brass and Copper, list of Jan. 17, 1884, dis 15
 Bright and Annealed, Nos. 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, dis 30 & 10
 Bright and Annealed, Nos. 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, dis 30 & 10
 Bright and Annealed, Nos. 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, dis 30 & 10
 Copper, dis 30
 Galvanized, Nos. 0 to 18, market list dis 40
 Tinned, No. 0 to 18, dis 40
 Tinned Broom Wire, Nos. 18 to 25, dis 40
 Annealed Fence, Nos. 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, dis 50 & 10
 Annealed Grape, Nos. 10 to 18, dis 50 & 10
 Fence Staples, Galvanized, dis 70 & 10
 Japanned Barb Fence, dis 60
 Galvanized Barb Fence, dis 60
 Buck Thorn Galvanized, dis 60
 Picture Wire, dis 40
 Clothes Line Wire, Galvanized, dis 30
 Wire Cloth, green, drab and black, per sq ft 2 c net

WRENCHES.

American Adjustable, dis 45
 Baxter's Adjustable "S", list Jan. 1880, dis 30 & 5
 Baxter's Diagonal, dis 20 & 5
 Coe's, dis 60
 Coe's "Mechanical", dis 60
 Coe's Pattern, Malleable, dis 75
 Coe's Pattern, Wrought, dis 60 & 10
 Girard Standard, dis 50 & 10
 Girard Agl., dis 60 & 10
 Always Ready, dis 20-25

WRINGERS.

Universal, XX, No. 2 1/2, dis 35
 Universal, XX, No. 2, dis 40
 Universal, XX, No. 1 1/2, dis 50
 Universal, XX, No. 1, dis 60
 Universal, XX, No. 8, dis 10
 Universal, XX, No. 18, dis 30 & 25
 Universal, XX, No. 19, dis 30
 Universal, XX, No. 22, dis 30 & 25
 Peerless, No. 1, dis 40
 Peerless, with Cogs, No. 2 1/2, dis 45
 Peerless, with Cogs, No. 2, dis 48

THERMOMETERS.

Tin Case, dis 7 & 10
 Storm Glasses, dis 3.25 per doz.

TOE CALKS.

Winsted, dis 9c, dis 5

TRAPS.

Game, Newhouse, dis 35
 Game, Onida Pattern, dis 40 & 10
 Game, Blake's Patent, dis 40 & 10
 Mouse, Wood, Choker, dis 10
 Mouse, Round Wire, dis 10
 Mouse Cage, Wire, dis 25
 Mouse, Catch-em-alive, dis 25
 Mouse, Cylon Mouse, dis 75
 Ideal Mouse, dis 100
 Rat, "Decoy", dis 10
 Delusion Mouse, per doz., dis 1.50

SCISSORS AND SCISSORS.

Henry Seymour Cutlery Co.'s—Tailors, dis 40
 Glovers', dis 40
 Bankers', dis 60
 Bent trimmers, dis 60
 Straight trimmers, dis 60
 Tinner's and dental, dis 60
 Candy, dis 60
 Scissors, dis 60
 Sheep shears, dis 35
 Massachusetts Cutlery Co.'s—Straight trim-
 mers, dis 75

TACKS, BRADS, &c.
 New List, Sept. 1, 1882.
 Tinned Swedge Tacks, dis 30
 Tinned American Tacks, dis 30
 Swedge Tacks, all kinds, dis 30
 American Cut Tacks, dis 30
 Copper Tacks and Nails, dis 30
 Hungarian Nails, dis 30
 Gimp and Lace Tacks, dis 30
 Gimp and Lace Tacks, Tinned, dis 30
 Finishing Nails, dis 30
 Trunk and Clout Nails, dis 25
 Common and Patent Brads, dis 25
 Basket Nails, dis 30
 Brush Tacks, dis 20
 Leathered Carpet Tacks, dis 20
 Chair Box Nails, dis 30
 Chair Nails, dis 30
 Double-pointed Tacks, dis 40 & 5

TAP BORERS.

Common and Ring, dis 20
 Ives' Tap Borers, dis 15 & 10
 Enterprise Mfg. Co., dis 25

TOBACCO CUTTERS.

Enterprise Mfg. Co. (Champion), dis 25
 Wood Bottom, dis 40 & 5
 Ives', dis 40 & 5
 Wilson's, dis 35

TROWELS.

Lothrop's Brick and Plastering, dis 25
 Reed's Brick and Plastering, dis 15
 Disston's Brick and Plastering, dis 20
 Clement & Maynard's, dis 20
 Worral's Brick, dis 20
 Brad's and Waiby's, dis 20
 Garden, dis 35

TRUCKS (WAREHOUSE, &c.).

Handy Truck, dis 30
 Pendell Block Co., list, 1882, dis 35
 Peerless, with Cogs, No. 3, dis 50
 Peerless, with Cogs, No. 4, dis 60
 Eureka, No. 2, dis 42

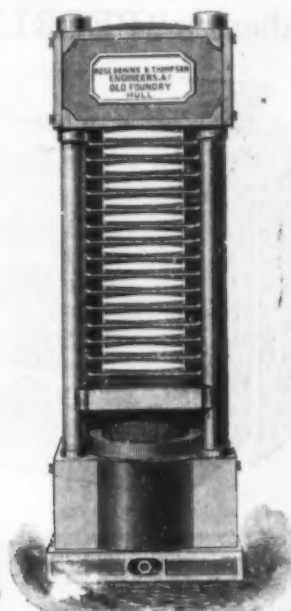
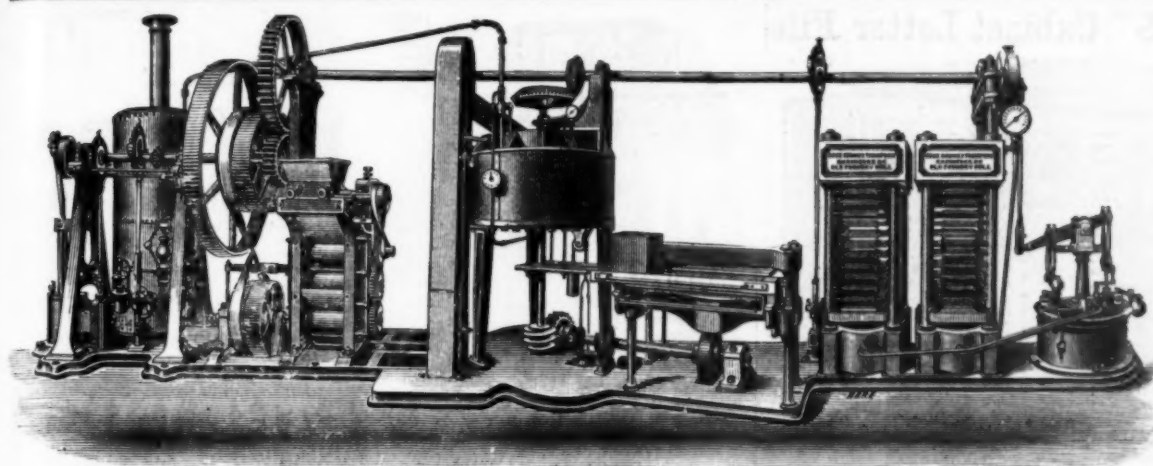
MISCELLANEOUS.

"Diamond" Vegetable Grater, dis 50, dis 10
 Rotary Knife Potato Parer, dis 18.00, dis 10
 Metallic Shingles, dis 50 and 45 per square
 Hopper Cherry Seeders, dis 50, dis 10

PAINTS, OILS, &c.

PAINTS.

Black Lamp, coach painters, dis 20c
 Black Lamp



REVOLUTION IN Cotton-Seed Crushing.

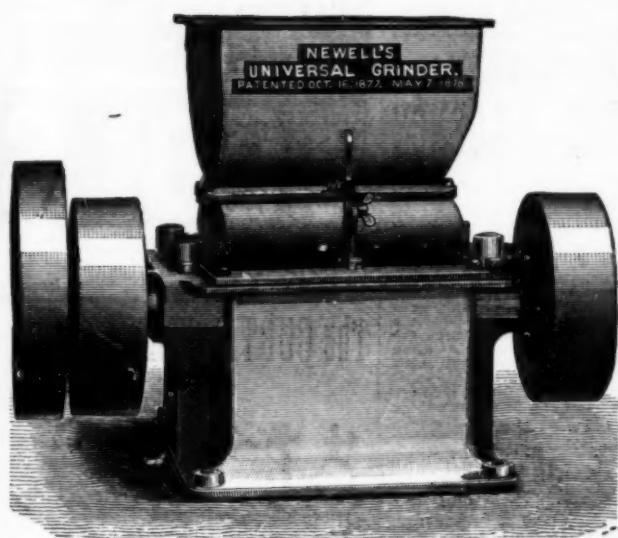
UNQUALIFIED SUCCESS OF
ROSE, DOWNS & THOMPSON,
HULL, ENGLAND,
Anglo-American System of Extracting Oil from Cotton Seed.

SOLE AGENTS FOR THE UNITED STATES AND CANADA,

The Newell Universal Mill Co.

10 BARCLAY STREET, NEW YORK,

Who also manufacture the NEWELL MILL in all its forms and sizes.
A large stock assorted sizes of Engines and Boilers constantly on hand for immediate delivery.



PLEASE SEND FOR CUTS AND PRICES.

THE HERRINGTON

PATENT



IMPROVED

POTATO DIGGER!

The above Cut represents the HERRINGTON MACHINE FOR DIGGING POTATOES. It will dig where there are heavy vines, and does good work in all kinds of soil, leaving the potatoes on top of the ground, without cutting or bruising, and in good shape for picking up. If it does not perform the work, as above stated, successfully and satisfactorily, no patronage is asked for it. It will tell its own story in a potato-field with a span of horses before it.

It was awarded a diploma from the Western New York Agricultural Society at Rochester, N. Y., September 30th, 1881, for a *successful* machine for digging potatoes; also First Premium at the Fairs of both Rensselaer and Saratoga Counties, N. Y., and "Certificates of Highest Merit" at New York State Fairs of 1882 and 1883.

The following is a description of the machine and its workings:

The frame or enclosure which contains the machinery for operating the digger is hung on the axle of the machine. At the rear end of said enclosure the digger proper is hung at its top centre to a shaft which projects from the enclosure, which has a rapid, short, oscillating motion when in operation, which is driven by a crank, and a sliding-box up near the handle of the machine, which is also enclosed. The vine and weed kickers are driven with a chain belt, as can be seen.

The operator holds the handle of the machine in one hand, the reins in the other.

As the machine hangs flexible, the digger can be elevated or lowered at will. When the end of a row of potatoes is reached, the operator hoists the digger out of soil, and at the same time the vine straighteners under the poles are hoisted and held by a spring and ratchet, so that the operator has nothing to do but attend to his team until he gets into position for the next row; then he pulls the cord on top of the handle, which lets the digger and vine straighteners down ready for operation, thus digging every row in succession.

Orders for these machines will be filled in time for the potato harvest of 1884.

For Price, Description, Testimonials, &c., address

PLANTERS' HOE COMPANY, TROY, N. Y.

Amberg's "PEERLESS" Cabinet Letter File



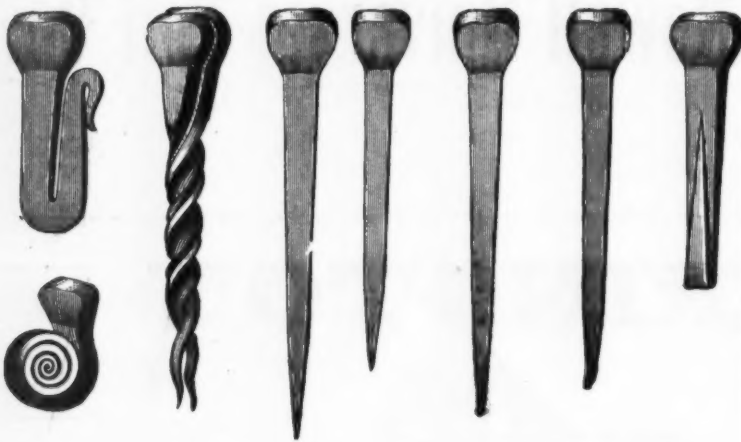
The small cut shows one of the Files or Drawers of a Cabinet. The index in each File has 26 divisions, giving us many spaces or compartments for separating the papers, thereby assuring quick access to any letter when wanted.

OVER 6,000 IN USE.

These Cabinet Letter Files are made in many sizes, ranging from the smallest of six Files to those of one hundred or more. As lately improved, they combine all the desirable points wanted in a complete Letter File; are elegantly and substantially made, the wood-work being of the best seasoned Black Walnut, veneered, with fittings of brass and steel, nickel-plated. They can be arranged for any class of correspondence, and adapted to any requirement.

Illustrated Catalogue on application to

CAMERON, AMBERG, & CO., Sole Manufacturers,
69 Duane Street, New York. 71 & 73 Lake Street, Chicago. 27 Little Britain, London.



Saranac Horse Nail Co.

PLATTSBURGH, N. Y.

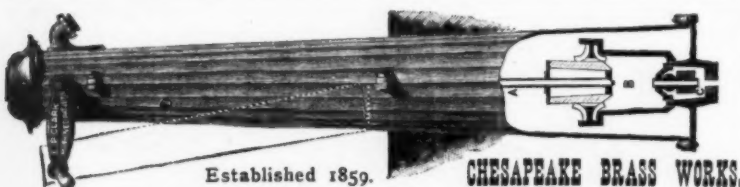
A. WILLIAMS, Prest. and Treas. S. F. VILAS, Vice-Prest. W. S. GUIBORD, Sec'y.

The cuts illustrating this advertisement are of Nails twisted and bent when cold.

AGENTS:

ELY & WILLIAMS, - - - PHILADELPHIA AND NEW YORK.
S. H. & E. Y. MOORE, - - - CHICAGO.
SLIGO IRON STORE CO., - - - ST. LOUIS.
S. G. B. COOK & CO., - - - BALTIMORE.

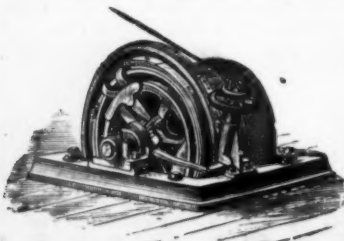
CORRESPONDENCE SOLICITED.



Established 1859.

CHESAPEAKE BRASS WORKS.

L. P. CLARK & SONS, 34 N. Holliday St., BALTIMORE.



Charles Webster, Pres. S. M. Burnham, Sec'y.
J. S. Lane, Supt. W. T. Allen, Treas.

WEBSTER, CAMP & LANE MACHINE CO.

No. 140 Main St., Akron, O.

BAND FRICTION HOIST
For Mines and Blast Furnaces.

The SAFEST, SIMPLEST, STRONGEST and BEST in the Market. Engines, Boilers, Pumps, Skips, and everything pertaining to a first-class plant of Hoisting Machinery. Correspondence solicited.



Bates' Hand Elevators.
Patented April 18, 1871. Released July 25, 1876.
OVER 6,000 IN USE.

Adapted for Warehouses, Stores, Factories, Hotels, Public Institutions, and every place where merchandise, etc., is transferred from one story to another.

JAMES BATES, Patentee.

Nos. 1, 3 & 5 President Street, BALTIMORE.

THE BRADSTREET MERCANTILE AGENCY

HAS NOW BEEN

Under its present successful management for the past seven years.

And during that time its business has more than trebled, while its facilities have proportionately increased.

No expense is considered too great in obtaining and applying to the conduct of the business all possible improvements. With its present system for obtaining and promulgating information, this Agency is justly regarded by its patrons as authority on all matters affecting commercial credit. Its ramifications are greater and its business larger than any similar organization in the world conducted in one interest and under one management.

You are respectfully invited to investigate, and, if in need of an Agency, to test its ability to serve you.

CHAS. F. CLARK, President.

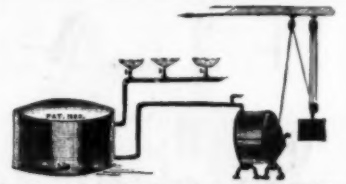
Baltimore Office,—American Building,
H. KERSHAW, Supt.

New and Second-Hand Machinery

- NEW.**
- 1 Engine Lathe, 10 in. x 3 1/2 ft.
 - 1 each Engine Lathe, 11 in. x 4 and 5 ft.
 - 1 " " " 12 in. x 5, 6 and 8 ft.
 - 1 Engine Lathe, 14 in. x 5, 6 and 8 ft.
 - 1 " " " 16 in. x 6 ft.
 - 1 each Engine Lathe, 16 in. x 6, 7, 8 and 10 ft.
 - 1 Engine Lathe, 18 in. x 6, 8, 10 and 12 ft.
 - 1 " " " 20 in. x 8, 10, 12, 14 and 16 ft.
 - 1 " " " 22 in. x 8, 10, 12, 14 and 16 ft.
 - 1 " " " 24 in. x any length of bed to 26 ft.
 - 1 " " " 26 in. " " " 26 ft.
 - 1 " " " 28 in. " " " 26 ft.
 - 1 " " " 30 in. " " " 26 ft.
 - 1 " " " 32 in. " " " 26 ft.
 - 1 " " " 34 in. " " " 26 ft.
 - 1 " " " 36 in. " " " 26 ft.
 - 1 " " " 38 in. " " " 26 ft.
 - 1 " " " 40 in. " " " 26 ft.
 - 1 " " " 42 in. " " " 26 ft.
 - 1 " " " 44 in. " " " 26 ft.
 - 1 " " " 46 in. " " " 26 ft.
 - 1 " " " 48 in. " " " 26 ft.
 - 1 " " " 50 in. x 4, 6 and 8 ft. Rod feed only.
 - 1 each Turret Lathes, 13 and 14 in. x 14 in. x 6 ft.
 - 1 Fox Turret Lathe, 16 in. x 6 ft.
 - 1 Fox Lathe, 15 in. x 5 ft. Round arbor.
 - 1 each Hand Lathes, 10, 12, 15 and 18 in. swing.
 - 1 Iron Planer, 18 in. x 18 in. x 3 ft.
 - 1 each, Iron Planers, 20 in. x 20 in. x 4 and 5 ft.
 - 1 Iron Planer, 24 in. x 24 in. x 6 ft.
 - 1 each, Iron Planers, 26 in. x 26 in. x 7 and 10 ft.
 - 1 Iron Planer, 30 in. x 30 in. x 10 ft.
 - 1 " " " 36 in. x 36 in. x 10 ft.
 - 1 each 16, 20, 22, 23, 25, 28, 30, 34 and 38 in. Upright Drills.
 - 1 each, Nos. 2, 3, 4 and 6 Spindle Gang Drills.
 - 1 each 8, 10, 12, 15, 18 and 24 in. Shapers.
 - 1 each, Nos. 1, 2, 3 and 4 Milling Machines.
 - 1 No. 2 Milling Machine, Lincoln Pattern.
 - 1 New Pattern Milling Machine, Grant & Bogert.
 - 1 each, Nos. 2, 4, 5 Wire Feed Screw Machines.
 - 1 each, Nos. 3 and 7 Spindle Nut Tapper.
 - 1 Boring and Turning Mill, each 50 and 72 in.
 - 1 Gray's Screw Machine, to take all sizes to 1 in.
 - 1 32 in. Gear Cutter.
 - 1 Grant & Bogert Cutter Grinder.
 - 1 12 in. x 30 in. Cylinder Horizontal Engine.

SECOND-HAND.

- 1 Engine Lathe, 15 in. x 6 ft. Chelsea Machine Co.
 - 1 " " " 24 in. x 8 ft. Fair order, with taper attachment.
 - 1 " " " 14 in. x 8 ft. Blaisdell.
 - 1 Planer, 27 in. x 27 in. x 5 ft.
 - 1 " " " 37 x 37 x 9 ft.
 - 1 " " " 24 x 24 x 7 ft.
 - 1 " " " 41 x 44 x 5 ft.
 - 1 " " " 50 in. x 50 in. x 17 ft.
 - 1 Crank Planer.
 - 1 Lincoln Pattern No. 2 Millers.
 - 1 9 in. Shaper.
 - 1 Bolt Cutter, to take sizes to 1 inch.
 - 1 Horizontal Boring Machine, 36-in. swing, will take 6 feet between centres.
 - 1 30-in. Plain Upright Drill.
 - 1 Cement Slicer, 12 in. stroke.
 - 1 35-in. Gear Cutter.
 - All kinds Machinists' Tools and Supplies.
- New York Agency of the Tanite Co.**
Grant & Bogert Machine Tool Works,
AND FOR THE
"New Polished" Shafting.
H. PRENTISS & CO.
43 Dev Str., New York.



THE BROUGH GAS MACHINE.

We desire to call your attention to the advantages of this Machine (patented Sept. 4, 1883,) for lighting Churches, Hotels, Dwellings, Factories, etc. There is no smoke, and it is free from condensation in pipes. It can be applied to Stoves and used for Heating Purposes. It is also sold on reasonable terms. For terms and all information address

Brough Gas Machine Works.

Office, 52 Lexington Street, BALTIMORE, MD.

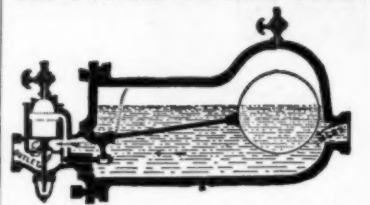
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CINCINNATI, O.

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TOOLS for Machinists, Amateurs, Jewellers, Model Makers, Blacksmiths, Carpenters, Coachmakers, etc. Send 20 cts. for new Metal Worker's Catalogue, 300 Pages. Wood Worker's Catalogue free.

TALLMAN & McFADDEN, Philadelphia, Pa.

The CURTIS STEAM TRAP.



Has main valve outside. Air valve inside.

MANUFACTURED BY

Curtis Regulator Co., 158 Beverly St., Boston.

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109 Liberty St., New York; No. 19 N. 7th St., Philadelphia; 86 and 88 Market St., Chicago; No. 49 Holliday St., Baltimore.

NEILSON CURTIS, Agent.

1837. NOVELTY WORKS. 1893.

JAMES MURRAY & SON, Machinists and Millwrights

Engines and Boilers, Mills of all kinds, Marine Railways, &c. Improved Clay Tempering Machinery, Steam or Horse Power. Phosphate Machinery, Crushers, Rollers, Mixers, &c. &c.

40, 42 & 44 York Street,

NEAR LIGHT, BALTIMORE.

Repairing of all kinds promptly done.

The Seibert Cylinder Oil-Cup Co.

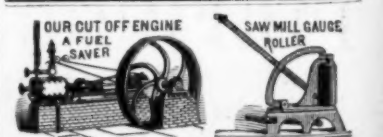
SOLE MANUFACTURERS OF

Oil Cups for Locomotives, Marine and Stationary Engine Cylinders, and the Seibert and Gates Patents with Sight Feed.

Take Notice.

The "Sight Feed" is owned exclusively by this company. See Judge Lowell's decision in the United States Circuit Court, District of Massachusetts, Feb. 23d, 1883. All parties are hereby notified to desist the use, manufacture or sale of INFRINGING CUPS, as we shall vigorously pursue and prosecute all infringers.

THE SEIBERT CYLINDER OIL-CUP CO.
53 Oliver St., Boston, Mass.



TAYLOR MFG. CO.

JACKSON & TYLER, Agents, Baltimore.

THE E. M. BIRDSALL COMPANY, AUBURN, N. Y.

Manufacturers of

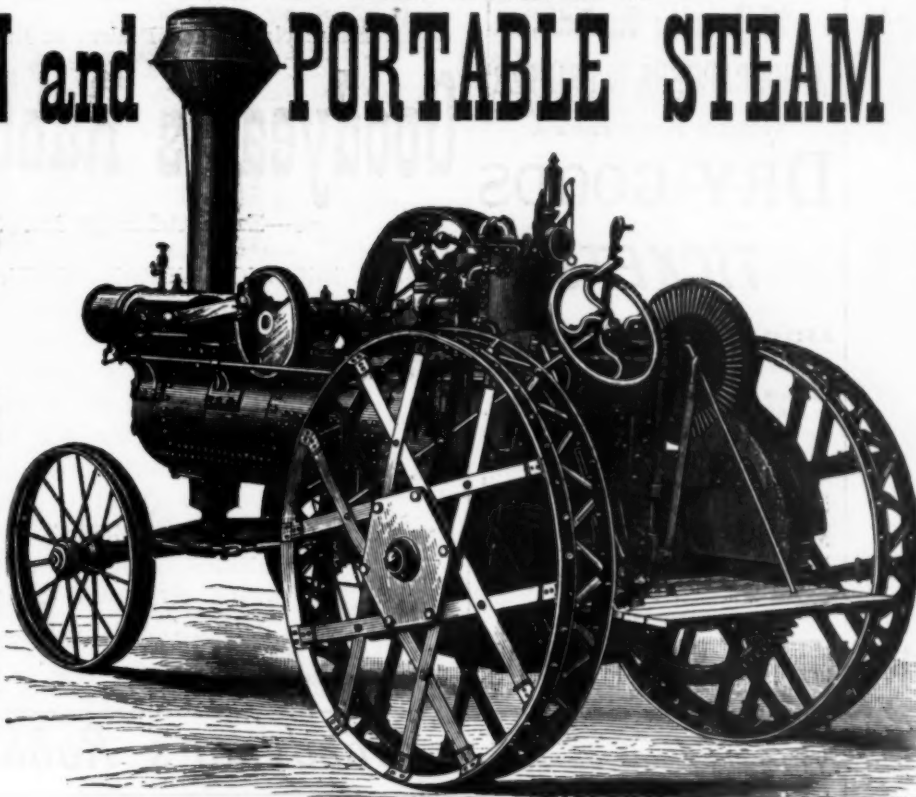
TRACTION and PORTABLE STEAM ENGINES.

—UNSURPASSED—

FOR

Power, Light Weight, Economy in Fuel and Water, Efficiency, Simplicity and Durability.

The Traction Engines are furnished with Birdsall's Patent Driving Wheel, which is made expressly for soft or muddy roads; they are warranted to travel and take a load on roads that are too soft to be used by any other traction; are very simple; easily managed; better made and made of better material and decidedly the best finished engine in the market. A prize will be given to every farmer who tries them and does not find by experience that they are not excelled by any and superior to most.



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FOR

Power, Light Weight, Economy in Fuel and Water, Efficiency, Simplicity and Durability.

APRON and VIBRATING THRESHING MACHINES, embodying superior points of excellence and merit peculiar to themselves and possessed by none others, are built expressly for heavy work, and have unusually large separating and cleaning capacity; are matchless in strength, beauty of design and finish, and can be operated by any one of ordinary intelligence, owing to their extreme simplicity and solidity; are capable of taking care of all the grain that can be gotten to them, and in a superior manner.

THE TRACTION ENGINE.

The Novelty Saw Mill is the only mill in the world built on truck wheels, and is gotten up on entirely different principles from any other. The cutting is done with the under side of the saw and with the grain of the wood instead of against the grain as in all other mills, thus saving largely in power required to drive the saw; they are gotten up expressly for light power, and are warranted to run with from $\frac{1}{4}$ to $\frac{1}{2}$ less power than any mill built; a ten-horse engine gives excellent power for them, and will handle the heaviest timber to the best advantage. They can be set up ready for operation while the steam is being raised on the engine; and they will pay the owner on small jobs, owing to their portability, that will not pay on any other mill. They make excellent lumber; are easily managed, and with our Ten-Horse Traction or Portable Engine will cut from 3,000 to 5,000 ft. of lumber per day, according to the size of the logs and skill of the operator.

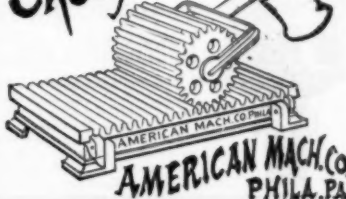
WM. R. EMERSON, 6 & 8 N. Liberty St., Baltimore, Gen'l Agt.

for States of Pennsylvania, Maryland, Delaware, Virginia, West Virginia and North Carolina. Agents wanted in every county: not already taken. Send for Circulars and Price Lists.

THE AMERICAN FLUTING MACHINE.



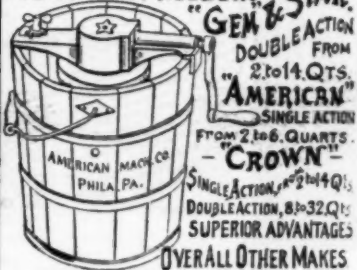
No. 1. CROWN HAND FLUTER.



THE A.M.CO. WRINGER.



THE AMERICAN MACHINE CO'S. ICE CREAM FREEZERS.



Seasonable Specialties of American Machine Co.

PHILADELPHIA.

Baltimore Agents--MORITZ & KEIDEL, 48 and 50 German St.

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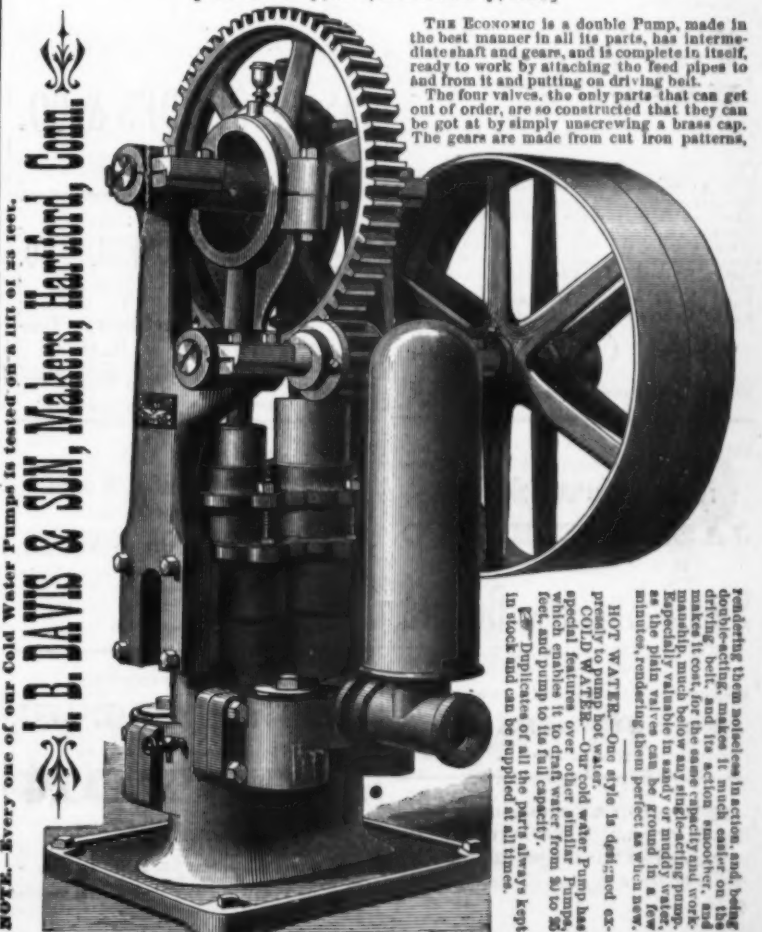
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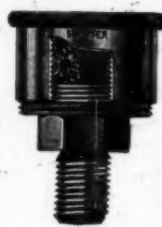
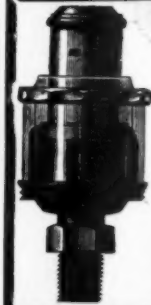
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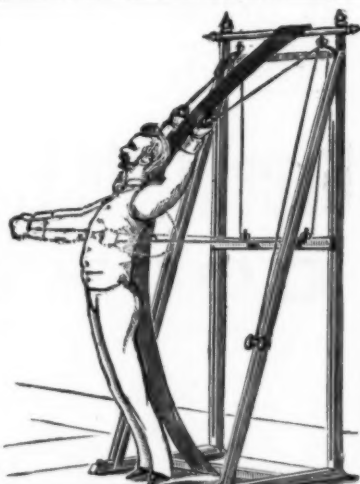


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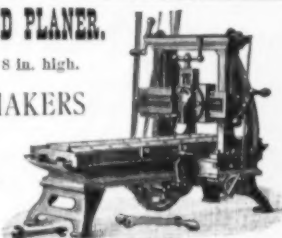
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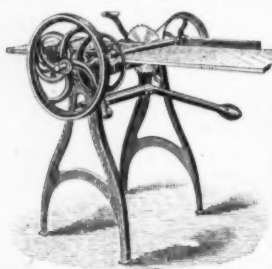
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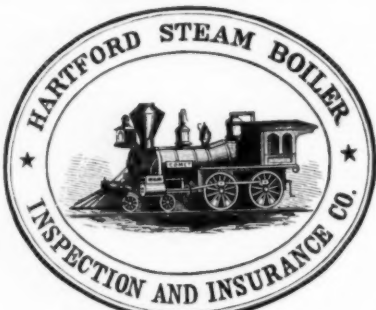
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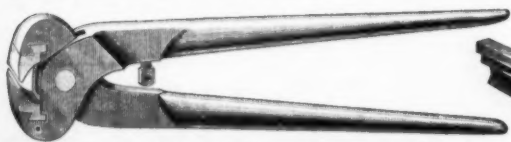
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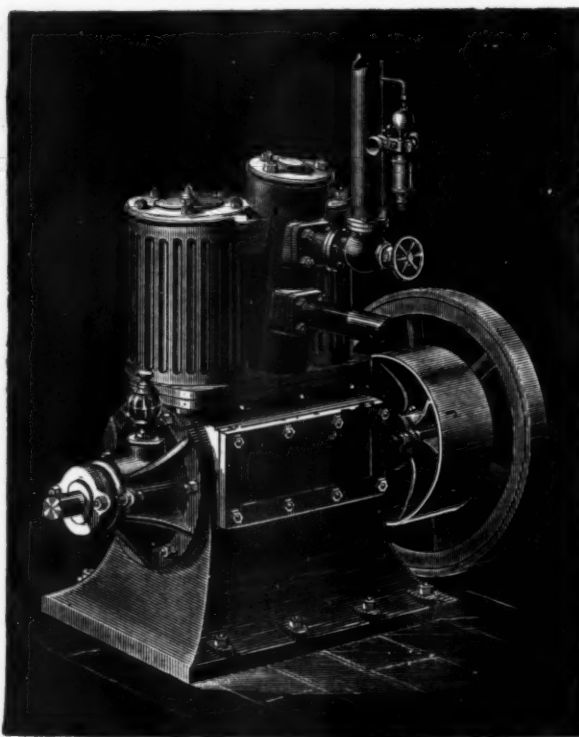
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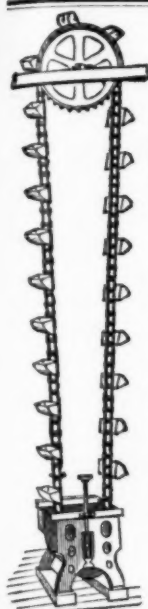
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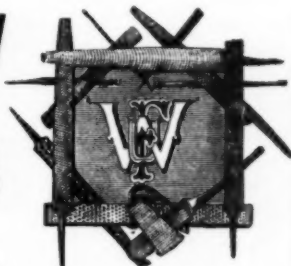
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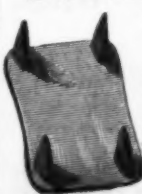
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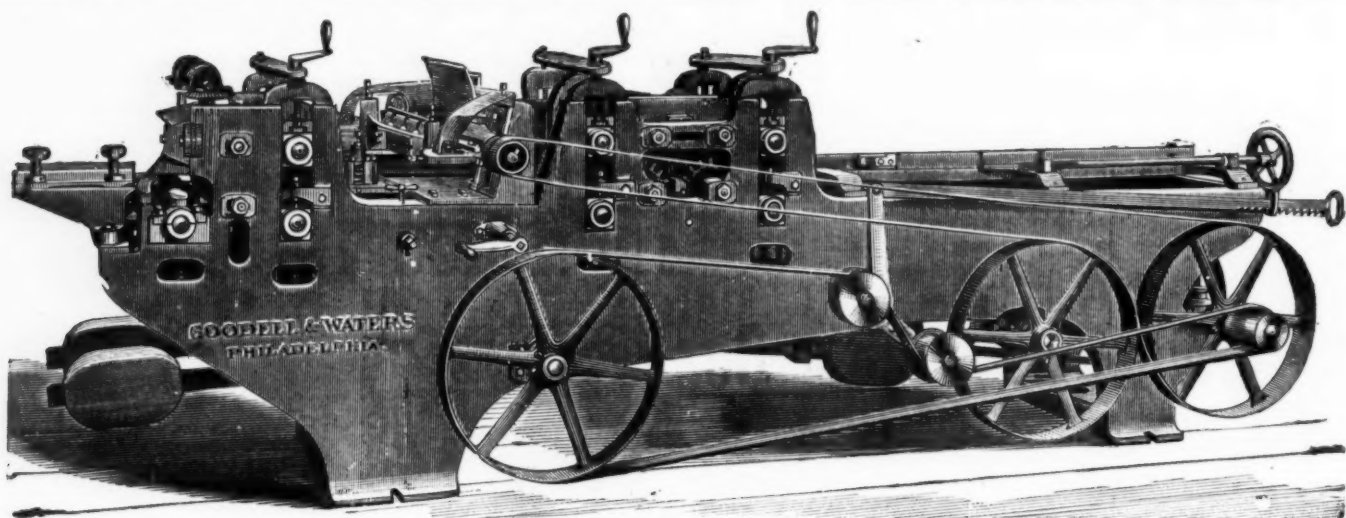
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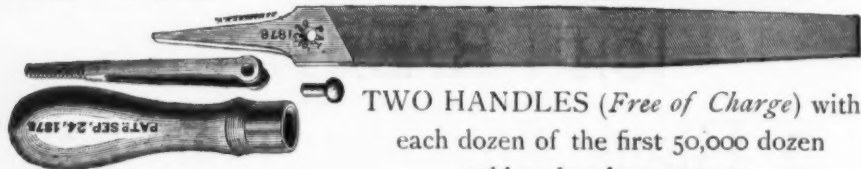
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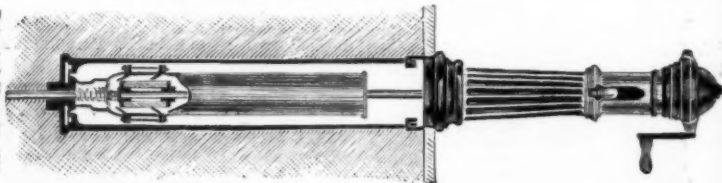
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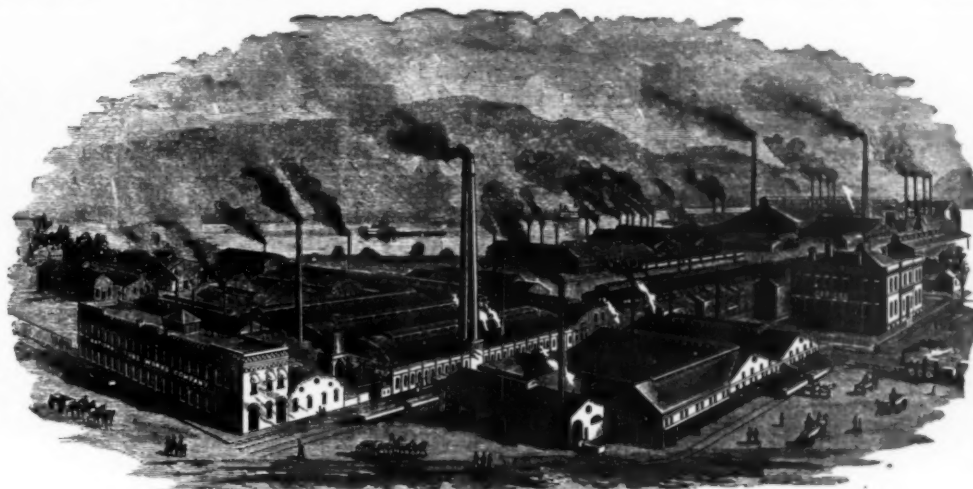
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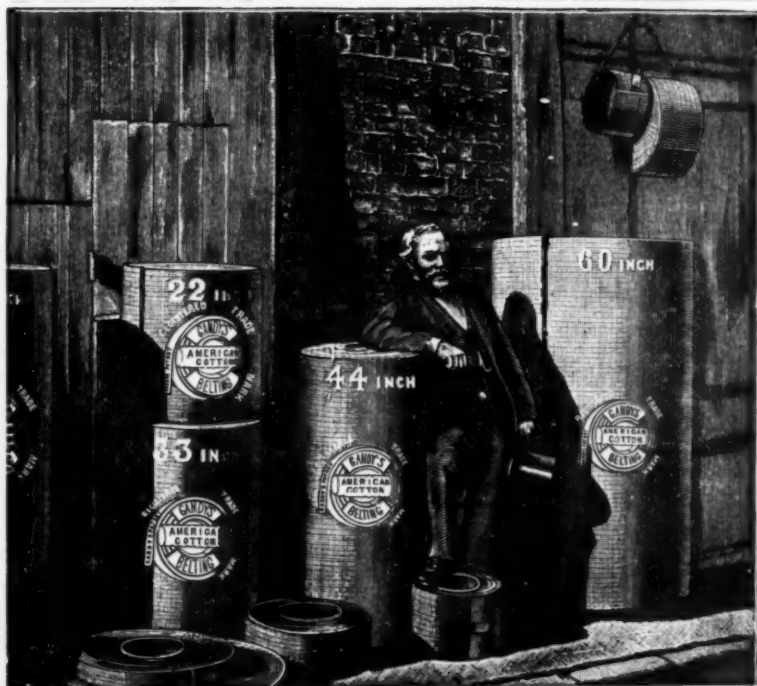
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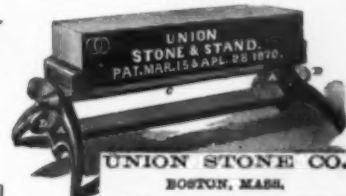
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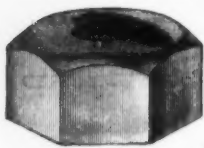
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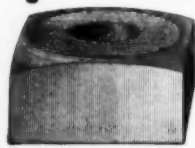
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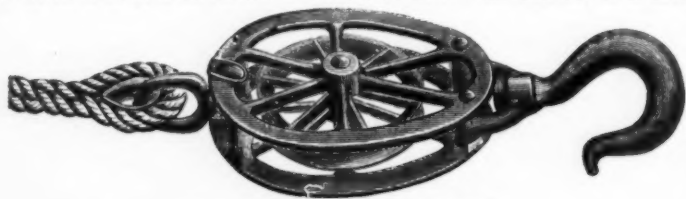
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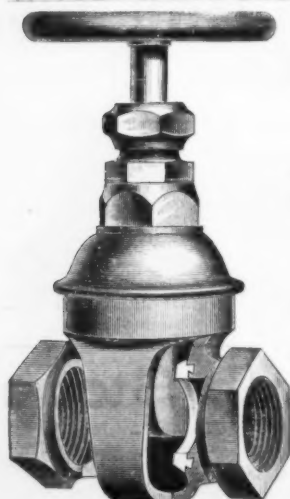
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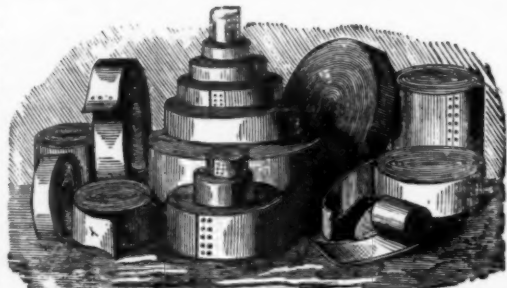
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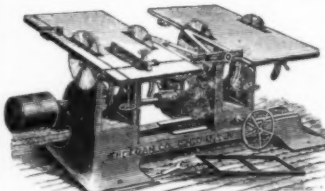
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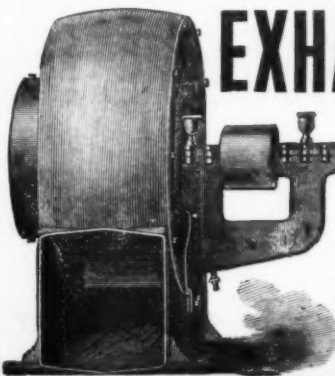
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